Sopheon Accolade®

Viewing Charts and Reports Training Guide

Version: 16.2

About Sopheon Accolade®

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About the Accolade Education Program

This module is part of the Sopheon Accolade Education Program (AEP). The AEP modules are designed to help Accolade users perform the tasks in their company's business process using the Accolade application. The content in the modules is meant to be used side-by-side with the application, and is part of the overall documentation suite provided for Accolade.

The benefits of using Accolade as part of your company's innovation development process include the following:

- Reduced cycle time by displaying clear structure and visibility.
- Reduced rework through timely, properly sequenced completion of all key tasks and milestones.
- Assured positive user experience through properly developed product requirements.
- Improved communication by automating collaboration between multifunctional team members.
- Provided decision-making information. Poor projects are stopped or placed on hold so resources can be redirected to more promising and higher value projects and products.
- Provided clear project requirements. Expectations of a project team and project manager at each stage are clearly spelled out.
- Managed business risk. Break resource commitments into increments or stages.
- Established key baseline information and metrics.

The Accolade documentation suite contains the following additional components:

Document	Contents
Sopheon Accolade What's New in This Release	For each release, review this document for an overview of the new features and changes within the release.
Accolade Online Help	Accessible directly through Accolade, the online Help provides comprehensive how-to and reference information about all aspects of using Accolade.
Sopheon Accolade Administrator's Guide	Provides information for administrative professionals regarding Accolade setup. This information is also provided in the online Help.
Sopheon Accolade Installation Guide	Provides information about the installation of the application and its required databases.
Dashboards for Accolade Installation Guide	Provides installation information for installing the Dashboards for Accolade component.
Quick Reference Cards	A PDF that can be printed double-sided that provides quick tips and navigation information for using Accolade.

Document	Contents
Online Help for Accolade Add-ins	Accolade add-ins, including Accolade Office Extensions, Accolade SmartDocuments for Google, Accolade SmartDocuments for Office, Accolade Portfolio Optimizer, and Accolade's integration with Microsoft Project, each include their own Sopheon created Help file accessible directly from the application after the add-in is installed. Each Help file describes how to use the features of that particular add-in.

Prerequisites for Using this Module

The contents of this training module assumes you are assigned the Accolade user roles and have a basic understanding of the terms and concepts listed below and how they are used in your installation. In addition, the content in the related training modules listed below may be helpful before reviewing the contents of this module.

Accolade User Roles

- Any with Table Wizard Rights

Terms and Concepts

- Accolade Navigation

Related Training Modules

- Getting Started with Accolade

Charts and Reports Overview

Reporting in Accolade provides a means to summarize and analyze project and other data within your database in a format and manner that is most applicable to your organization and data needs. Reports can range from user login attempts to much more complicated charts and reports used to analyze projects and completion efficiency or financial information. The **Charts & Reports** page provides a single location for creating and viewing online reports and charts to which you have access. For example, a Process Designer can configure a report to have one or many views of the data in different categories and then the user can cycle through those unique chart views using the cycle icon to look at the major classifications in a portfolio.

Report Formats

Reports in Accolade can exist in the following formats:

- **Accolade Online Reports** - Online reports created within Accolade are built and viewable directly within the application without having to write a SQL query. These reports provide an on-demand reporting experience and can be used for the creation of Accolade charts. The ability to create and modify online reports is available to any Accolade user assigned All Reporting Rights, and anyone with Refresh Workbook Data rights can view these reports. These reports can be added to the **Charts & Reports** page within Accolade, and can be added to a pod within a layout in order to view them in projects.
- **HTML Reports** - HTML reports can be built using a single SQL query to gather data from the database, and display as a table in a secondary browser window. This format has no additional formatting available, so can be useful for simplistic reports, for example, to determine where process models are being used or to review user access history. HTML reports are also available for users to send or receive via email. These reports can be added to the **Configuration > Charts & Reports** tab within Accolade and can be added to a process model for availability in a project.
- **MS Excel Reports** - MS Excel reports are built and viewable in Excel, provide flexibility in formatting, and are created using the Accolade Office Extensions add-in application. The add-in provides an interface to create a data report based on Accolade data. You can also create Excel reports using a template and the Accolade query infrastructure, creating reports based on data pulled into the spreadsheet using queries. These reports can be added to the **Configuration > Charts & Reports** tab within Accolade and can be added to a process model for availability within a project.

Each report type can contain the same data. The report type you choose to build depends on where the report needs to display within Accolade, the means you want to use to build the report, and the amount of formatting required to make the data within the report useful when viewing.

Report Access

Anyone in your organization can design a report, and anyone with All Reporting Rights can create and save an online report. However, only Administrators and Process Designers can create MS Excel or HTML reports, or set online reports as available for all users to view within Accolade. Only Process Designers can associate a report with a process model to display within a project.

Users must have either Refresh Workbook Data or All Reporting Rights for access to view shared reports in the **Charts & Reports** page and through the projects to which they have access. If the report is restricted by role and/or by access group, users must have a system user role that matches the report and/or be assigned to an access group that matches the report.

Additional rights are required to create and refresh report data using the Accolade Office Extensions add-in.

Chart Formats

Charts in Accolade can be created using an Accolade online report as a source, and can exist in the following formats:

- - Bar charts
- - Grouped bar charts
- - Stacked bar charts
- - Bubble charts
- - Line Chart by Columns charts
- - Line Chart Trends charts
- - Pie charts
- - Radar charts
- - Unknown or custom charts

The chart type you choose to build depends on the data to be displayed, so it is important to select appropriate data types to render a meaningful chart. For example, a Process Designer can configure different groupings of data for display in a chart format. The user can then cycle through those various chart views of the data to understand the performance of a portfolio. Select the cycle icon to view the different charts.

Charts Access

Using Accolade online report data, users with All Reporting Rights can create charts on the **Charts & Reports** page. Administrators and Process Designers can set charts as available for sharing with other users, and can add a chart to a pod within a layout to display on a project page or as a global link.

Users must have either Refresh Workbook Data or All Reporting Rights for access to view shared charts in the **Charts & Reports** page and through the projects to which they have access. If the chart is restricted by role and/or by access group, users must have a system user role that matches the chart and/or be assigned to an access group that matches the chart.

Viewing Charts and Reports in Accolade

Reporting in Accolade provides a means to summarize and analyze project and other data within your database in a format and manner that is most applicable to your organization and data needs.

Charts and reports displayed at a system-level allow users to analyze and compare projects across a portfolio, while charts and reports displayed at a project-level allow users to summarize a single project's status and relevant information.

Example

For example, consider a report or chart that contains various project details for every project in the system. When displayed at a global level, either on the **Charts & Reports** page or in a page layout displayed as a global link, it displays the details for all included projects. When displayed at a project level, in a project page layout, it only displays the given project details.

Viewing System-Level Charts or Reports

The **Charts & Reports** page provides a single location for accessing and viewing online reports and charts within Accolade. Users must have Refresh Workbook Data or All Reporting Rights to view an online report or chart.

The **Charts & Reports** page is organized into two sections to help users quickly navigate to their information:

- **My Charts & Reports:** Items that appear here are considered private. You must be assigned as an owner of the chart or report, and it is not marked on the configuration side as **Available**.

  Note: An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the chart or report. An assigned owner who has Refresh Workbook Data rights will only be able to view the chart or report.

- **Shared Charts & Reports:** Items that appear here are considered public. They are available for users to view if the chart or report is marked on the configuration side as **Available**. If the item is restricted to specific roles, users must also have a matching system user role assigned.

  Important! The reports that display for selection are based on your access group permissions as defined in your user profile.

Note: Charts and reports that are included in a page layout can also be viewed within a global link, if they are included in your company's configuration.

To view an available chart or report:

1. From the **System** menu, select **Content Sources > Charts & Reports Manager**.

Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

2. Click the name of the chart or report you want to view.

   To narrow the list, search by name or category.

3. *(Optional, as available and applies to reports only)* Click in the upper right corner to download the current version of the report.

Viewing Project-Level Charts or Reports

In addition to viewing system-wide information in the charts and reports available on the **Charts & Reports** page, Administrators and Process Designers can associate charts and reports with a process model to display data within a project. When viewed through a project, only data that pertains to that project displays in the chart or report, unless **Override project filtering** is set in the report configuration.

Charts and reports can be displayed in a project by two different methods:

- Displayed on the project using a Report List pod on a layout - MS Excel or HTML reports are configured in the pod's advanced settings. Users with appropriate rights can click on a report name to open it for viewing or downloading, depending on the report's configuration.

  Click on the Report List pod on the layout to print the list of charts and reports that display.

- Added to a project page layout - HTML reports, online reports, and charts created from online report data can be added to a page layout that is associated with the process model, and can be accessed by opening the related custom page in the project's page list. This method of displaying a report allows users to view multiple data sources at one time, and to apply runtime filters in order to filter the project information displayed in the charts and/or reports.

Applying Runtime Filters to Charts or Reports

Users can apply runtime filters to charts or reports that are displayed within a page layout that is used as a project page or as a global link. Filters can be used to further modify the data displayed without making adjustments to the original data source, allowing users flexibility to display the information that is relevant to their role.

Runtime filters can be selected and applied either to a single report or chart, or to all charts and reports that are displayed in the layout.

In order to apply runtime filters, the selected reports must be set up with filters that have runtime filtering enabled, and the selected charts must be created from an online report with filters that have runtime filtering enabled.

To apply filtering to an individual chart or report on a layout:

1. Display the layout that contains the chart or report to be filtered.

   Each chart or report lists the runtime filters that are currently applied.

2. Click in the upper right corner of the chart or report to open the Report Filters dialog box.

   The filter categories applied to the selection will appear in the list. If the selection does not have runtime filters configured, the message "No filters have been defined" will display in the dialog.

3. For each filter row, enter the value to apply as filter criteria.

   Important! A value must be defined for all filters in the dialog box. If you do not wish to apply a particular filter, you will need to set its value to something that will not cause data to be filtered out.

   ---

4. Click **Apply** to apply the filters and refresh the data displayed.

5. *(Optional, as available and applies to reports only)* Click in the upper right corner to download the current version of a report.

To apply filtering to all charts and reports on a layout:

Note: Enable layout filters must be selected on the layout configuration in order to use this process to apply runtime filters to all charts or reports in a layout.

1. Display the layout that contains the charts or reports to be filtered.

   Page Filters appears in the upper left corner, along with a list of the filters that are currently applied to all charts and reports on the layout. In addition, each chart or report lists any unique runtime filters that are currently applied.

2. Click to open the Page Filters dialog box.

   In order to be available to apply to the layout, filter categories must be included in the configuration for all charts and reports on the layout.

   If the selection does not have runtime filters configured, the message "No filters have been defined" will display in the dialog.

3. For each filter row, enter the value to apply as filter criteria.

   Important! A value must be defined for all filters in the dialog box. If you do not wish to apply a particular filter, you will need to set its value to something that will not cause data to be filtered out.

   ---

4. Click **Apply** to apply the filters and refresh the data displayed.

5. *(Optional, as available and applies to reports only)* Click in the upper right corner to download the current version of a report.

Using Accolade Tools to Interact With Online Reports

Access the enhanced search, filter, and sort capabilities in Accolade's Charts and Reports section. These enhancements allow users to search, filter, sort, and hide/show columns in reports in a more efficient way and organize pertinent information quickly.

Note: Refreshing the page will reset any filters or sorting.

To column filter all charts and reports in Accolade

- Access the new icon that is located in the column header that will allow users to select filtering options, using checkboxes, to apply to their report search.
- Utilize the newest search functionality that allows users to find filtering options to apply.
- Use the new icon located at the top right of the report to remove any filters applied to the report.

To search all charts and reports in Accolade

- Select the Search Bar at the top-right corner of the report to keyword search within the report.

  Note: The keyword search is not case sensitive.
- Click the X icon in the Search Bar to clear the keyword search data.

To show/hide columns in Accolade

- Select the icon displayed in the top-right corner of the report to show or hide columns within that report.
- Uncheck the box next to the column name and click the Apply button to hide the column.

To effectively control columns widths in Accolade

- Hover over the header bar in the report to see the lines separating each column. Users can now click and drag to expand or minimize that specific column.
- Double click the line separating each column to set the column back to the original size (Auto-Sizing).
- Display full text contents of the cell by clicking onto that specific cell when the text is truncated due to the smaller size of the column.

To interactively sort all charts and reports in Accolade

- Click on any column header in the report to sort the report based on the data within that column.
- Clicking once on a column will sort in ascending order, clicking twice will sort in descending order, and clicking a third time will revert to the default report sort order.
- Click on the **Save Preferences** icon in the top-right of the report to save your column widths and hidden columns.

Notes:

- Accolade data is automatically refreshed with current values each time you open a chart or report.
- To clear the current values set for a runtime filter, click to open the Report Filters dialog and click in the corresponding filter row. This sets the filter back to the default settings as defined at the chart level.
- Filter icon will not appear if there are no filters available for users to apply.
- From the **Charts & Reports** page, you can send an HTML report via email directly to yourself or to others. Click the name to display the report, and click in the upper right corner. In the dialog, select the users you want to send the report to and click **Done**. Accolade sends a copy of the report to you and the selected users *with the same data that displays to you*. If there is sensitive data in the report, take caution in sending it to others.
- If you have Accolade Office Extensions installed on your computer, you can save an MS Excel report to your computer and then refresh its Accolade data without starting Accolade.
- To explore "what if" scenarios, save an MS Excel report to your computer, unhide the data worksheets if necessary, modify the data, and then observe the effect of the changes on the charts and reports in that workbook. Scenarios can also be created using a report's filter options.

Accolade Online Reporting Overview

Accolade Online Reporting provides an on-demand reporting option and can be added to the **Charts & Reports** page within Accolade. Any Accolade user assigned All Reporting Rights can create online reports within Accolade.

An online report consists of the following components:

- **Data columns** - Determines the area of the database, for example Projects or Access Groups, that are available to retrieve information from.
- **Filters** - Specifies the criteria to match to include data in the report from specified columns.
- **Users** - Indicates which Accolade users have access to view and edit the report. Each selected user must have report refresh rights to see the report. Users with all Reporting Rights also have access to change the selected columns and filters within the report definition.

Creating Online Reports within Accolade

Online reports provide an on-demand reporting option and can be added to the **Charts & Reports** page within Accolade. Any Accolade user assigned All Reporting Rights can create online reports. Generated content can be added as a report in a project by adding a Report pod to a layout, and then adding the layout to a process model.

Use the **Report Privacy Warning Text** system parameter to add a notification within the report to indicate the content is private or confidential, and should not be forwarded to others.

To create an online report within Accolade:

1. From the **Workspace** menu, select **Charts & Reports**.

   To narrow the list, search by the report name or category.

   Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

2. Do one of the following:
   - **To add a new report** - Click **Add New** and select **Online Report** from the drop-down list.
   - **To copy an existing report** - Locate the report you wish to copy on the **Charts & Reports** page.
     - Click in the **Copy** column. Select, add, or rearrange the columns you wish to keep. You can also add filters and advanced matrix settings. Click **OK** to save changes and progress to the next step. Give your newly copied report a name, a system name, a category, and a description. Decide if you wish to transpose the column and row data. Click **Save** to create the report.
   - **To edit an existing report** - Click the name of the report on the **Charts & Reports** page to open it for editing, Click to edit the report columns, or click to edit the report details.

   Only users assigned as report owners and Process Designers with All Reporting Rights can edit report columns and details.

3. Select a subject from the drop-down list, such as **Projects** or **Users**, to display the column sets available within that subject.
4. Double-click or drag and drop the column names from the left side of the dialog to any area in the **Selected Columns** tab to include the column in the report.
   - To search for a column, enter search criteria in the **Find** field after selecting the subject.
   - Use the and options to expand or collapse the subject data sets in order to select specific column options.
   - To include an entire column set, drag and drop the column set to the **Selected Columns** tab.
   - To change the column order of selected columns, drag and drop a column into a new location within the list.
   - To display the totals for number columns, check the Show Totals option to indicate that you

would like to sum up a number column into a Totals row at the bottom of the report.

- To remove a column, click in the corresponding row.

5. *(Optional)* Refine the content of the report as necessary using one or more of the following options.
   - **Rename columns** - Click in one or more selected columns and enter a new column name that is more appropriate for the report you are creating.
   - **Set column sorting** - Click next to one or more selected columns to indicate whether the column is sorted in ascending or descending order. If you select more than one column to sort by, indicate the order in which the columns sort; 1 being the primary sort, 2 the secondary sort, and so on.
   - **Create project links** - If the **Project Name** report column is selected for inclusion in the report, select the **Is Link** check box to make the project name in a report linkable to the project's home page.
   - **Define column properties** - In the **Properties** area, define the column display and behavior including grouping items together to aggregate them and Excel date intervals. Aggregate selections are only available for number metric columns.

     For example, to summarize the total costs for all projects within a brand, select **Sum** as the aggregate value in a column that represents the total costs for a project. The aggregation displays automatically when the report is selected to display in a chart.
   - **Data Format** - If the column contains a date or a number, select how the data should be displayed. The currency symbol that displays for numbers is defined in the **Currency Symbol** system parameter.
   - **Hide columns** - Make a selection in the **Show** check box to show or hide columns within the displayed report.
   - **Add Count Column** - If you select to summarize values within the report, click **Add Count Column** to add a column that shows how many rows of source data are combined in the summary row.

     You can order and rename the added column as you can other columns; however, you can add only one **Count** column to the report.
   - **Add Calculated Column** - Click **Add Calculated Column** to add a column to the report that displays a calculation based on other column data.
6. *(Optional)* On the **Selected Filters** tab, double-click or drag and drop the column name from the left side of the dialog to any area in the **Selected Filters** tab to use it as filter criteria that data must match to be included in the report.
7. On the **Advanced Matrix Settings** tab, if more than one matrix was selected in the report columns, click **Add** to add the matrix join definitions.
8. Click **OK** to exit the dialog and return to the report settings.

9. Enter the following information to identify the report:

   Required fields display with **red** text and an asterisk * if the field is empty.

Field	Description
Name	Enter a name, up to 64 characters long, which identifies the report.
System Name	Enter a unique, shorter name that identifies the report in queries, reporting views, field codes, and other places in Accolade. The name must be unique among online reports and can contain only letters (English alphabet), numbers, and the underscore.
Category	Enter or select the group to which this report belongs. Use categories to organize like reports together. For example, if there are a large number of reports that the IT department uses to track user logins, use a category to group those reports together. • Leave this field blank to add to the **Default** category. • To define a new category, select **New Category** and enter the category name. • To delete a category, remove every item from the category. Empty categories are deleted automatically.
Description	Enter a description of the purpose or nature of the report. This description helps other users identify the report throughout the system.
Transpose	Select this check box to transpose the column and row data when the report is rendered.
Owners	Click and select the additional users who can edit the report configuration. To filter the list of users, enter one or more search criteria to filter by name, login name, email address, function, or extended field. • Clicking **Select current user** will assign the role to the current user (if they have the appropriate rights). • Selecting a **Function** in the drop-down will display available users that are assigned to the function. The current selection defaults to the function to which you are assigning a user, however depending on the project configuration, you can assign any user. • Clicking the **Show advanced filters** check box displays or hides the additional filter options. • Clicking **Clear** removes the current user assignment and displays **[None]** to indicate that no user is assigned.

Field	Description
	An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the report. An assigned owner who has Refresh Workbook Data rights will only be able to view the report. To make the report available for all users or for configuration setup, you must have a Process Designers with All Reporting Rights as an assigned owner.

10. *(All optional, available in configuration only)* Enter the following information to make the chart publicly available.

Field	Description
Override project filtering	Select this check box to include the entire report set from within a project. The report will not filter to project-specific data when viewed from within a project, and will display all projects in a portfolio regardless of security. *Note* This check box will not be available for selection if the Filter to Portfolio check box is selected.
Filter to Portfolio	Select this check box to display the Portfolio Levels To Display slider. *Note* This check box will not be available for selection if Override Project Filtering check box is selected. This check box is optional and is not mandatory.
Portfolio Levels To Display	Select this toggle as well as the Filter to Portfolio check box so that the report will filter to that project Portfolio Hierarchy instead of the default of filtering down to just that project. *Note* This toggle is optional and is not mandatory.
Available to Charts & Reports	Select this check box to make the report publicly available for users to access and view the report. Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the report in the **Shared Charts & Reports** section on the **Charts & Reports** page.
Available to Configuration	Select this check box to make the report available for use in configuration.
Roles	Select the user roles that have access to view the report.

Field	Description
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the report on the **Charts & Reports** page.
Configuration Access Groups	When either **Available to** check box is selected, access groups must be defined for the report. The access groups displayed are based on the current user's access group permissions and the access groups the report belongs to. Additionally, Process Designers with matching permissions will be able to edit and view the report.
Process Model Usage	Click the **Process Model Usage** button to see a list of process models that the online report is associated with. The list includes all process models the report is included in, as well as links to the process model's component tree pages you have Edit access to.

Note: Clicking either **Available to** check box will place the report in the **Shared Charts & Reports** section of the **Charts & Reports** page. If neither check box is selected, the report will only be available to the assigned owners in their **My Charts & Reports** section.

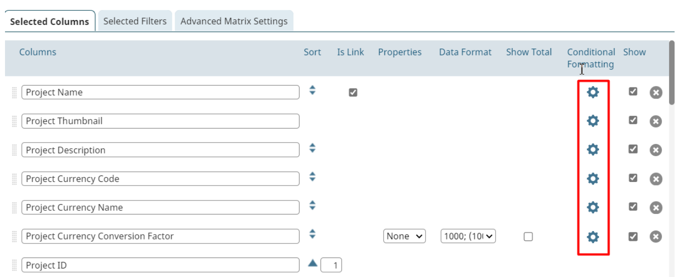
11. *(Optional, available in configuration only)* Set up the report for export.
12. *(Optional)* Click in the upper right corner to display a preview of the report contents prior to saving, or click to download the report to a spreadsheet file.
13. Click **Save** to create a new report, or to save changes to an existing report.

Conditional Formatting in Reports

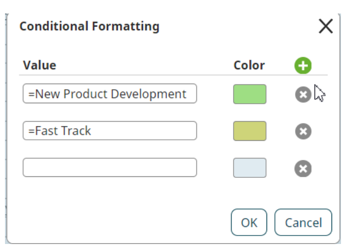
Accolade users need an easy way to focus users on the most critical information in the report. Users can easily use conditional formatting on report columns such as date, number, or text to focus attention on the key data to drive decisions on projects. Users can specify a formula that tells the report how to color the background of the cells in a given column. For example, while setting up the report, one can choose to highlight the project duration column which will show the long-running projects as risks. The user would be specifying the criteria such as a project running greater than 500 days will have the color red, projects running between 200 and 500 days will be yellow, and projects running less than 200 days will be green. This will effectively highlight projects that have been running for a very long time.

1. Access the report you wish to configure.

2. Click the **Settings** icon  at the top right of the report page. The **Selected Columns** screen will appear.



3. Select the Settings icon in the **Conditional Formatting** column. The **Conditional Formatting** modal will appear.



4. Configure the fields. Click the **OK** button when finished.

5. Click the OK button on the **Select Columns** page to finalize preferences.

How Do I Know the Feature is Working?

Users have the ability to input formulas into the Value fields of the Conditional Formatting modal. Use Rational and Logical Operators to express what actions should take place when the desired criteria is met. Follow the steps below to guide you through this feature. IF help is needed, use the Valid Operators as a reference.

Relational Operators	Logical Operators
= (Equals)	Or, || (Double Pipe)
<> (Does Not Equal)	And, &&
>= (Greater Than or Equal To)	
<= (Less Than or Equal To)	
> (Greater Than)	
< (Less Than)	

- To make a valid formula, you need at least one of the relational operators from the table above, and at least one value.
  - i.e. = Red
  - i.e. >=0
- If you're using any logical operators (i.e. &&) then you'll need at least 2 relational operators and at least 2 values per logical operator.
  - i.e. >1 || <0
- Comparisons to Dates need to be specified in the YYYY-MM-DD format.
  - i.e. < 2025-03-25, if you want all dates less than March 25th 2025 to be formatted.

Notes:

- To delete a saved online report, click the name of the report on the **Charts & Reports** page and click **Delete** at the bottom of the page. Only the report owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the report.
- To include a project's thumbnail image in the report, add the **Project Thumbnail** column available in the **Project Details** column set.
- A reference table must also be added to Accolade as an online report in order to be available to use in reporting. The reference table information is included by selecting the **Reference Tables** option when selecting columns to be included in the report.
- The process model determines whether the report is available at the project level. When viewed through a project, only data that pertains to that project displays in the report, unless **Override project filtering** is set in the report configuration. Non-project related

information displays identically in both locations. Click on the **Reports** page of the project to print the list of charts and reports that display.

- Using filters that reference data with square brackets may not return correct results. It is not recommended to use square brackets in naming projects or other Accolade data, as these characters are not supported in filtering and calculation functionality.
- Use the **Currency Symbol** system parameter to specify the currency symbol that displays in the **Data Format** field when creating charts and reports.
- Users can now access the "Null or Empty" format when utilizing Conditional Formatting.

Adding Calculated Columns to Online Reports

Reporting details can be contained in multiple sources within Accolade. To combined related data values to be used for reporting or the creation of charts or presentations, users can create reports that include calculated columns that calculate and/or display combined data, allowing users to manipulate and analyze Accolade data values.

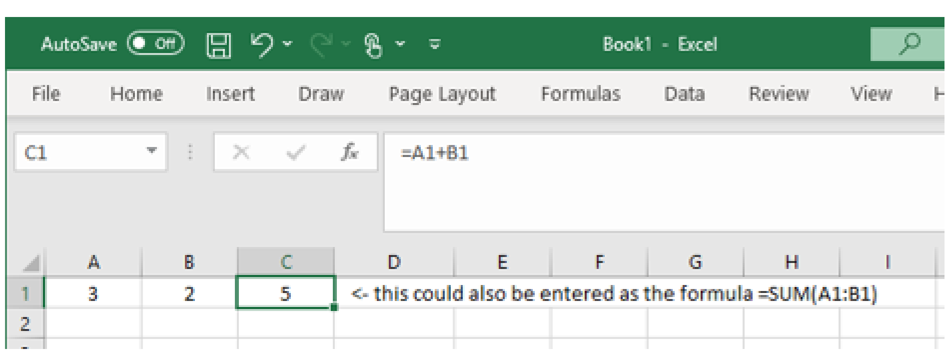
For example, a user may have several different project metrics that represent categories of project costs such as Administrative, Operating, Marketing, etc. In order to calculate and display the sum of these project costs within an Accolade report or chart, the user can include a calculated column in their report setup.

EXAMPLE Example

Writing a calculated column formula in Accolade is slightly different than writing an equation in math class, or using formulas in Excel. The most notable difference is the use of the equal sign (=).

For example, if you want to add the numbers 3 and 2:

- In math class, the equation would read **3+2=**, with a calculated value of **5**.
- In Excel, formulas start with the equal sign, so it would look like **=3+2**. When entered, the value in the selected cell would return as **5**. If you wanted to add two cell values, it would look something like **=A1+B1** or **=SUM(A1:B1)**. Assuming the values in A1 and B1 were 3 and 2 respectively, it would return the value **5**.



- In Accolade online reporting, the equal sign is assumed, so it does not need to be included in the formula field. If you wanted to add the values of Column A and Column B, it would look like **[Column A] + [Column B]** or **Sum([Column A], [Column B])**. Assuming the first row values of Column A and Column B were 3 and 2 respectively, it would return the value **5**.

Example Report

WARNING: Do not share confidential information. Violators will be prosecuted!

Project Name	Column A	Column B	Sum of Columns A & B
Project Example 1	3	2	5
Project Example 2	4	9	13
Project Example 3	2	7	9

To add a calculated column to an online report:

Note: See below for a list of calculations that are currently supported for reporting.

1. Create a new report or open an existing report for editing.
2. On the **Selected Columns** tab, ensure the columns to be used in the calculation are included in the report.

   Report calculations are executed from left to right. In order for selected columns to be used in a calculated column, they must a) be selected as a column for the report, and b) be included before they are referenced by a calculated column (this means they must appear to the left of the calculated column when displayed, or above the calculated column when selecting columns in the report setup).

3. Make a selection in the **Show** check box to show or hide columns within the displayed report.

   If you want to use the columns as a reference for calculated column formulas but do not wish to display them in the report, clear the Show check box. Hidden columns can still be used as a reference for calculated columns, but will not appear in the report when displayed.

4. Click **Add Calculated Column**.

   The column is added with two fields - one for the display name for the column, and one for the formula to be calculated.

5. In the top field, enter the column name to be displayed when the report is generated.
6. In the *f* field, enter the formula to be calculated within the report.

   When entering your formula, the columns are referenced by enclosing the column display name inside of square brackets. In the example above, Column A is entered as **[Column A]**.

7. Select the appropriate datatype for the calculated column.
   - **Date** - Select this option when you want the column data to display as a Date datatype, for example when using the DateAdd function to project a future project date.

- **Number** - Select this option when you want the column data to display as a Number datatype, for example when using the Sum function to combine the values of two or more columns of expense values.
- **String** - Select this option when you want the column data to display as a String datatype, for example when using the Concatenate function to display user name and functions combined in one column.

7. *(Optional)* Drag and drop the calculated column to a new location within the list.

   Note that while the calculated column cannot be displayed in the report until after its reference columns are displayed, you can have calculated columns that are displayed between data columns as necessary. Using the example above, after the **Sum** column we could add **Column C** and **Column D** to the report and then add another calculated column, and so forth.

8. Click **OK** to exit the dialog and return to the report settings.
9. Finish setting up the report, as necessary.
10. *(Optional)* Click in the upper right corner to display a preview of the report contents prior to saving, or click to download the report to a spreadsheet file.
11. Click **Save** to create a new report, or to save changes to an existing report.

Available Formulas for Calculated Columns in Reporting

The following section details the operators and functions that are available for use when creating your calculated column formulas.

Important! Note that the examples use "Column A", "Column B", and "Column C" to generically refer to the display names of different columns that are included in the report data.

Operators

Operators are process or mathematical parts of expressions, such as addition and multiplication, and relationships such as greater than or less than. Use the operators below within your calculated column expressions.

Operator	Example
Additive and Subtractive Operators	
+ (plus, plus sign)	[Column A]+[Column B]
- (minus, dash)	[Column A]-[Column B]
Multiplicative Operators	
* (multiplied by, asterisk)	[Column A]*5

Operator	Example
/ (divided by, slash)	[Column A]/[Column B]
% (mod, percent sign)	[Column A]%10
Primary Operators	
value (integers, text strings, dates, functions)	('this is a text string') While single quotes work for dates, we recommend wrapping dates in pound or hash signs instead to ensure consistency of data types. For example, (#2021-10-19#).
( ) (parentheses)	1000-(6*[Column A])
Relational Operators	
= (equals)	[Column A]=250
<> (does not equal)	[Column A]<>[Column B]
> (greater than, angle bracket)	[Column A]>250
>= (greater than or equal to)	[Column A]>=250
< (less than, angle bracket)	[Column A]<500
<= (less than or equal to)	[Column A]<=100
Logical Operators	
or, || (double pipe)	[Column A]<[Column B]||[Column A]<500
and, &&	[Column A]<[Column B]&&[Column A]<1000

Functions

The functions included in the calculated column formula determine in part what is returned in the column. Use the functions described below within your calculated expressions to return data within a calculated column.

For more information on the description or formatting for the calculations below, see Calculated Metric Expressions Reference.

Function	Example Formula
Abs	Abs([Column A])
Acos	Acos([Column A])

Function	Example Formula
Asin	Asin([Column A])
Atan	Atan([Column A])
Avg	Avg([Column A], [Column B], [Column C])
Ceiling	Ceiling([Column A])
Concatenate	Concatenate('text1',[Column A], 'text2', 'textN')
Contains	Contains([Column A], 'My Blue Heaven', 2, 7)
Cos	Cos([Column A])
DateAdd	DateAdd('D', 5, [Column A])
DateDiff	DateDiff('D',[Column A], [Column B])
DatePart	DatePart('M', [Column A])
Exp	Exp([Column A])
Find	Find([Column A], 'My Blue Heaven', 2, 20)
First	First([Column A], [Column B], [Column C])
Floor	Floor([Column A])
IEEERemainder	IEEERemainder([Column A], [Column B])
If	If([Column A]>500, 'Go ahead', 'Stop')
In	In([Column A], 1, 2, 3)
IsNull	IsNull([Column A], [Column B])
Join	Join([Column A], [Column B], [Column C]), '|')
Length	Length([Column A])
Log	Log([Column A], 10)
Log10	Log10([Column A])
Lower	Lower([Column A])
LTrim	LTrim([Column A])
Max	Max([Column A], [Column B], [Column C])
Min	Min([Column A], [Column B], [Column C])
Now	Now()
Pow	Pow([Column A], 2)

Function	Example Formula
Replace	Replace([Column A], 'Blue', 'red')
Round	Round([Column A], 2)
RTrim	RTrim([Column A])
Search	Search('blue', [Column A], 5, 30).
Sign	Sign([Column A])
Sin	Sin([Column A])
Sqrt	Sqrt([Column A])
SubString	SubString([Column A], 4, 10)
Sum	Sum([Column A], [Column B], [Column C])
Tan	Tan([Column A])
Trim	Trim([Column A])
Truncate	Truncate([Column A])
Upper	Upper([Column A])

Notes:

- To delete a calculated column from a report, click the name of the report on the **Charts & Reports** page and click to display the report columns. Click the **Selected Columns** tab, and click in the corresponding calculated column row to delete it. Click **OK** to close the dialog and click **Save** to save the changes to the report.

Adding Dynamic Filters to Online Reports

Capture and filter report data using relative metric and metadata field codes to create dynamic reports that display data according to the project it is viewed within. Filtering reports based on relative metrics and metadata field codes allows you to narrow the returned data set while still generating a higher-level view. Dynamic filters allow you to view a subset of data from within different projects.

Important! Ensure the **Override project filtering** check box is selected on the report settings. This enables the report to include data across a subset of projects.

To add dynamic filters to an online report:

1. Create a new report, or open an existing report for editing.
2. Click in the upper right corner to view the report details, and click the **Selected Filters** tab.
3. To add filters, double-click or drag and drop the column names from the left side of the dialog to any area in the **Selected Filters** tab.
   - To search for a column to add as a filter, enter search criteria in the **Find** field after selecting the subject.
   - To include an entire column set, drag and drop the column set to any area in the **Selected Filters** tab.

   If multiple filters are added to the report, data must meet ALL filter criteria to be included in the report.

4. For each added filter, select the operator and filter criteria that report data must match to be included.

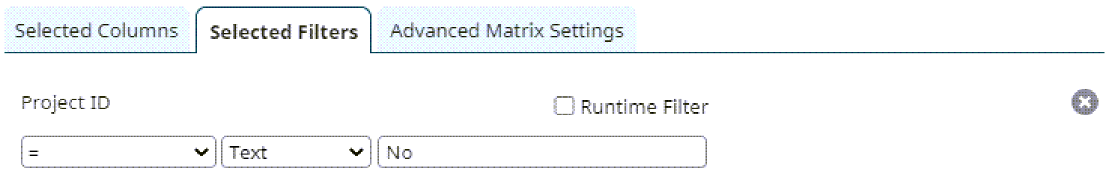
   The filter operators are dependent on the column selected to filter by, and generally include options such as =, is empty, is one of, does not contain, and more.

   The filter type must be selected from one of the following, and the following field identifies the criteria to be met:

   - **Metadata** - Enter the field code display name and select from the returned list. Ensure you enter a valid query field code. While some operators may work in global level reports, this filter type is designed to only work in reports pulled into project layouts via the **Report** pod (project level reports).
   - **Metric** - Enter the metric display name and select from the returned list. While some operators may work in global level reports, this filter type is designed to only work in reports pulled into project layouts via the **Report** pod (project level reports).
   - **Text** - Enter or select a static string or numeric value such as a date.
   - **Current User** - Filters the report to data only applicable to the user logged in and viewing the report. Current User is only available for numeric or ID data type columns.

   Type ahead to search for metrics and field codes when defining the filter criteria. Only metrics and field codes that match the data type of the filter display for selection. For example, if you select a date filter, you can only select date metrics or field codes to define the relative filter.

   For example, to create a report that returns a list of deactivated users, filter on the User Active column to return only users where the active flag is set to **No**. To set up this filter, the operator selected is **=**, the type selected is **Text**, and the criteria is **No**.



5. *(Optional)* Select the **Runtime Filter** check box to determine what filters are available for users to apply when refreshing the data in the report.
6. Click **OK** to exit the dialog and return to the report settings.
7. Finish setting up the report, as necessary.
8. *(Optional)* Click in the upper right corner to display a preview of the report contents prior to saving, or click to download the report to a spreadsheet file.
9. Click **Save** to create a new report, or to save changes to an existing report.

Notes:

- To delete a filter from a report, click the name of the report on the **Charts & Reports** page and click to display the report columns. Click the **Selected Filters** tab, and click in the corresponding filter row to delete it. Click **OK** to close the dialog and click **Save** to save the changes to the report.
- Filter icon will not appear if there are no filters available for users to apply.
- Long string and multi-select list metrics are currently not supported for use as metric filters.

Adding Multiple Matrices to Online Reports

Reporting details can be contained in multiple sources within Accolade. To consolidate data into a single source to be used for reporting or the creation of charts or presentations, users can create reports to combine the data. Information from more than one project matrix can be pulled into a report by including a common value that is included in the sources, for example, using a Department or Region metric or a common Row ID.

In addition to selecting the matrix and metric columns to be included in the report, users must create join statements that define how the matrix information is related.

To add multiple matrices to an Accolade online report:

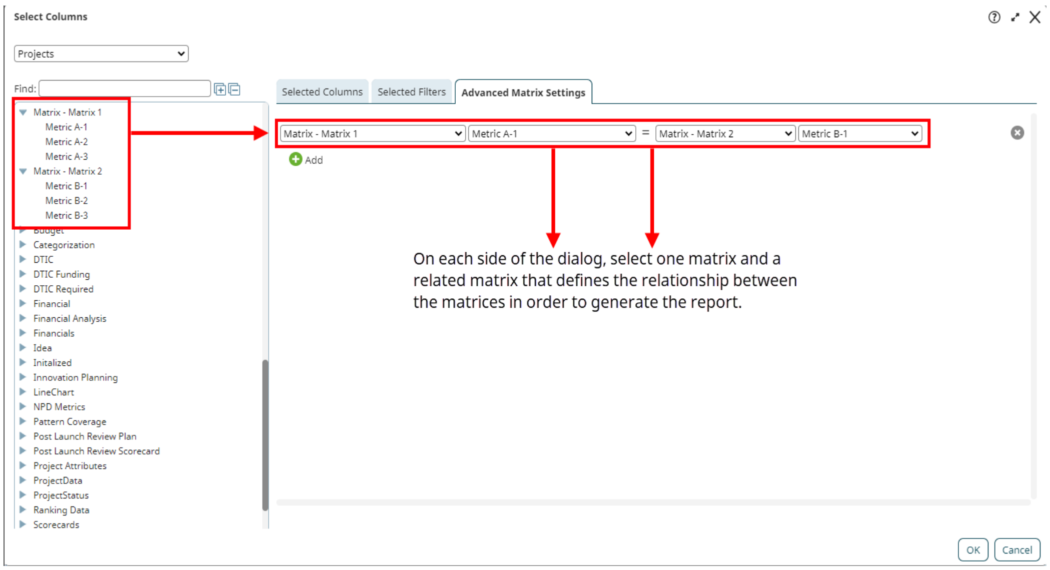
1. Create a new report or open an existing report for editing.
2. On the **Selected Columns** tab, select the matrices and metrics to be included in the report.
3. On the **Advanced Matrix Settings** tab, click **Add** to add the matrix join statements.
4. In each side of the dialog, select one of the matrices from the drop-down list, and select an option to use as the common value to join the matrices.

   The two selected matrices must be different, but the matrix/metric combination can be any combination of metrics or row IDs, as long as the selected metrics share a common value and are of the same data type.

   Selecting a metric will define it as the common value between the two matrices. Note that it can be the same metric if it is used in both matrices, or it can be different metrics that will have the same value in both matrices. In addition, a metric used as a common value does not need to be added as a reporting column in order to be used to create the join statement.

   Selecting Row ID will compare matrices by rows, for example Row 1 in Matrix A will be compared with Row 1 in Matrix B, and so on. This can be used when there are no additional common values in the two matrices, and the matrices have a direct line-by-line comparison.

Caution! Selecting Row ID as a common value can cause inconsistencies in reporting. Since assigned Row IDs are not visible within a matrix, report results can be incorrect if rows have been deleted from a matrix or if there is a mismatch.



5. Repeat steps 3-4 to add additional matrix join statements as necessary.

   All included matrices must have at least one related join statement, but a matrix can be referenced in more than one statement. For example, if you choose to include metrics from Matrix A, Matrix B, and Matrix C, you would need to create two statements to join the information. You could create a statement that relates A to B, and one that relates B to C, or you could have a statement that relates A to B, and one that relates A to C.

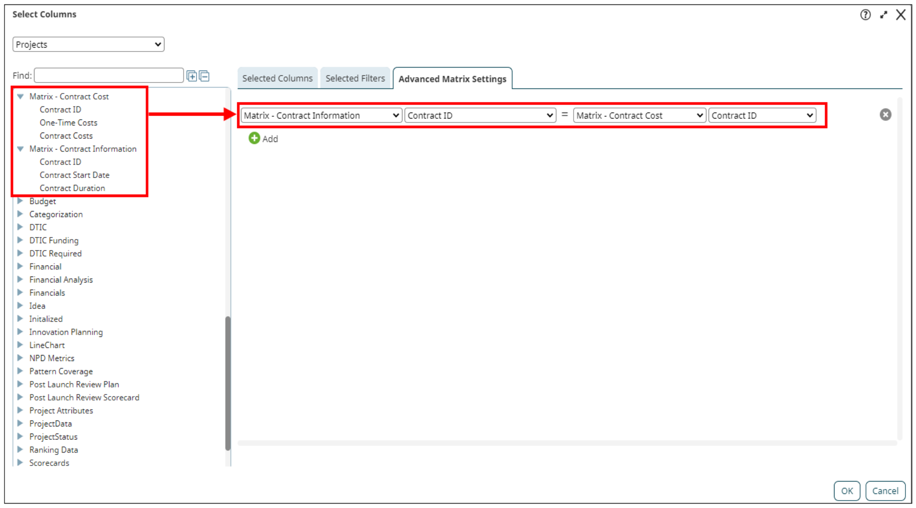
6. Click **OK** to exit the dialog and return to the report settings.
7. Finish setting up the report, as necessary.
8. *(Optional)* Click in the upper right corner to display a preview of the report contents prior to saving, or click to download the report to a spreadsheet file.
9. Click **Save** to create a new report, or to save changes to an existing report.

Note: **[EMPTY]** or blank cells in your report may indicate a mismatch in the common value linking the matrices. If the project value referenced in the join statement is not defined in one of the matrices, for example if there is not a matching value in both matrices, or a matrix contains empty rows, the report will return partial or full rows that contain **[EMPTY]** values.

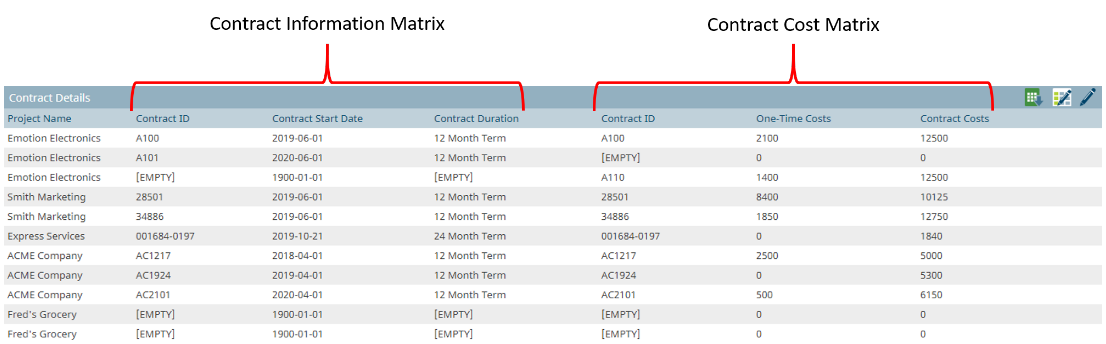
EXAMPLE Example

For example, a user has two different matrices that contain information related to vendor contracts for their projects, and needs to create a report containing relevant information from both matrices. They have a matrix named **Contract Information**, which contains the start date and duration of the specific contracts, and a second matrix named **Contract Cost**, which contains the costs related to the specific contracts.

To pull this information into one report, the user has added the related columns to the **Columns** tab, and created a join statement in the **Advanced Matrix Settings** tab that links the two matrices using the **Contract ID** metric that is a member of both matrices.



Once the user enters the remaining report details and clicks **OK**, the following report is generated:



Project Name	Contract ID	Contract Start Date	Contract Duration	Contract ID	One-Time Costs	Contract Costs
Emotion Electronics	A100	2019-06-01	12 Month Term	A100	2100	12500
Emotion Electronics	A101	2020-06-01	12 Month Term	[EMPTY]	0	0
Emotion Electronics	[EMPTY]	1900-01-01	[EMPTY]	A110	1400	12500
Smith Marketing	28501	2019-06-01	12 Month Term	28501	8400	10125
Smith Marketing	34886	2019-06-01	12 Month Term	34886	1850	12750
Express Services	001684-0197	2019-10-21	24 Month Term	001684-0197	0	1840
ACME Company	AC1217	2018-04-01	12 Month Term	AC1217	2500	5000
ACME Company	AC1924	2019-04-01	12 Month Term	AC1924	0	5300
ACME Company	AC2101	2020-04-01	12 Month Term	AC2101	500	6150
Fred's Grocery	[EMPTY]	1900-01-01	[EMPTY]	[EMPTY]	0	0
Fred's Grocery	[EMPTY]	1900-01-01	[EMPTY]	[EMPTY]	0	0

Note the following:

The **Contract ID** field is the common identifier included in both matrices, and used to connect the relevant information.

The left three columns contain information that is from the **Contract Information** matrix in the related projects.

The right three columns contain information that is from the **Contract Cost** matrix in the related projects.

The highlighted sections below show two different scenarios that may indicate missing or incomplete data.

- Rows 2 & 3 of the report display **[EMPTY]** in some of the data cells, which indicates Contract IDs values that are not found in both matrices. In row 2, the information for contract A101 is only included in the Contract Information matrix, so the related Contract Cost matrix fields are **[EMPTY]**. In row 3, the information for contract A110 is only included in the Contract Cost matrix, so the related Contract Information matrix fields are **[EMPTY]**.
- Rows 10 & 11 display **[EMPTY]** cells in all of the data cells, which indicates that one or more of the included matrices either does not have any rows added, or contains empty rows.

Note: Although the **[EMPTY]** returned values are an indicator of potential issues, the mismatched values reported are dependent on the datatype. String and list metrics will display as **[EMPTY]**. As shown in the example below, a number metric will display **0**, and a date metric will represent the default **1/1/1900** date.

Contract Details

Project Name	Contract ID	Contract Start Date	Contract Duration	Contract ID	One-Time Costs	Contract Costs
Emotion Electronics	A100	2019-06-01	12 Month Term	A100	2100	12500
Emotion Electronics	A101	2020-06-01	12 Month Term	[EMPTY]	0	0
Emotion Electronics	[EMPTY]	1900-01-01	[EMPTY]	A110	1400	12500
Smith Marketing	28501	2019-06-01	12 Month Term	28501	8400	10125
Smith Marketing	34886	2019-06-01	12 Month Term	34886	1850	12750
Express Services	001684-0197	2019-10-21	24 Month Term	001684-0197	0	1840
ACME Company	AC1217	2018-04-01	12 Month Term	AC1217	2500	5000
ACME Company	AC1924	2019-04-01	12 Month Term	AC1924	0	5300
ACME Company	AC2101	2020-04-01	12 Month Term	AC2101	500	6150
Fred's Grocery	[EMPTY]	1900-01-01	[EMPTY]	[EMPTY]	0	0
Fred's Grocery	[EMPTY]	1900-01-01	[EMPTY]	[EMPTY]	0	0

Notes:

- To delete a matrix join statement from a report, click the name of the report on the **Charts & Reports** page and click to display the report columns. Click the **Advanced Matrix Settings** tab, and click in the corresponding definition row to delete it. Click **OK** to close the dialog and click **Save** to save the changes to the report.

Exercises - Creating Online Reports

Try out what you have learned!

- Create a report using the online report that includes all open projects that started after a date of your choosing.
- Limit the users that can edit the report configuration.
- Set the report to download on Wednesday at 6:00 am.
- Create a bar chart that represents aspects of the report.

Downloading and Exporting Online Report Data

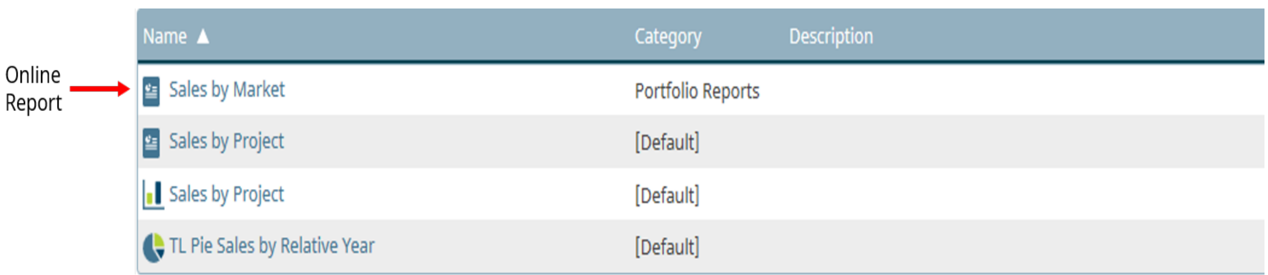
Users with access to a report can download the content of a saved online report directly from Accolade. Report creators can also set a report to export to a network location on a scheduled basis. Schedule a report for repeated exports if you save archive information on your network, or to provide access to a report to someone who is not an Accolade user.

> To download report configuration and settings for the purpose of exporting reports between Accolade instances, see Importing and Exporting Accolade Online Reports.

To download a saved online report:

1. From the **Workspace** menu, select **My Workspace > Charts & Reports**.
2. Click the name of the report you want to view.

   identifies reports created using Accolade Office Extensions. To refine the list of reports displayed, select a category from the **Category** field or use the **Search** field to search on report names and descriptions. If the **Category** field is unavailable, all reports are grouped within a single category.



3. Click in the top right corner of the report display page.

   Accolade downloads the report contents to spreadsheet file and saves it to a temporary internet files directory, using the report's system name as the file name. Save the file to a more accessible location.
4. If the document is a template, Administrators and Process Designers with the Template Access role can save the file and add it to the Template Library as a process document.

   If the document is a deliverable, activity, or gate document, the assigned document owners can save a version of the file to project.

To schedule a report to export to a network location:

1. From the **System** menu, select **Content Sources > Charts & Reports Manager**.
2. Do one of the following:
   - **To create a new report** - Click **Add New**, select **Online Report** from the drop-down list and create a new report.

- **To edit the export settings of an existing report** - Click the name of the report on the **Charts & Reports Manager** page and click in the upper right corner of the title in the displayed report.

3. In the **Export Days** field and the **Export Time** field, select the days of the week on which Accolade should export and enter the time the export should take place.

   You must select at least one day to schedule the export. The export takes place based on the Accolade server's time, not your local time settings. If the Accolade server is located in a different time zone, ensure you are scheduling the time accurately for the export.

4. Complete the following to identify the export location and report name:

Field	Description
Export File Path	Enter the directory location where the exported file is saved. The Accolade timed task service must have access to the network drive. Work with your system administrators to understand what network shares are available for use.
Filename	Enter the file name for the report. To append a timestamp to the file name, select the **Include timestamp** check box. Timestamps can be helpful to identify exactly when a report was exported and saved to the network directory.

5. In the **File Type** field, select whether to download the file as a spreadsheet file, or as a file with a .csv extension which can be opened in other spreadsheet programs.

   If you select to download to CSV and have text set in the **Report Privacy Warning Text** system parameter, the text is not included in the CSV file.

6. Click **Save** to save the report and the export settings.

Notes:

- The Timed Task Service must be enabled and running on the Accolade server for a scheduled export to save successfully. Contact your Accolade system administrator to ensure the service is running.
- If a scheduled export fails to save, the report creator receives a notification email about the failure.
- The colors defined in the **Excel Header Background Color**, **Excel Header Font Color**, and **Excel Header Is Bold** system parameters determine the formatting of the header rows within the spreadsheet file.

Adding Accolade Online Reporting Content to Templates

Add the content of a report created within Accolade to an existing document or template using a specific named range. When downloading the report, template, or a document version with the report content, the up-to-date Accolade data is included in the file.

A spreadsheet template containing content created within Accolade can also be used as the template for a deliverable or activity. Administrators and Process Designers with the Template Access role can save the file and add it to the Template Library as a Process Document type template instead of as a Report type.

To add content from an online report to an existing spreadsheet file:

1. Note the system name of the report in Accolade.
2. Select the cell within the spreadsheet where the report content should begin.

   When the file is downloaded from Accolade, the report contents start at the cell with the named range, and expands to the right and below for the required number of columns and rows to accommodate the data.

   Important! Any information in cells to the right of the one with named range could be deleted based on the report's content. Any information below the cell with the named range is pushed to below the report's content.

   ---

3. In the **Name** field for the cell, enter **SGM_RG_<RGReportName>** and press **Enter**.

   For example, to include a report with the system name **ModelsInUse**, enter **SGM_RG_ ModelsInUse** as the cell name.

Notes:

- Using this function to associate a spreadsheet workbook with report content to a project does not display project level data.

Creating Charts from Report Data Overview

Online reports created within Accolade can be used to create new or copy existing charts that represent all or a portion of the data that is returned in the report. Charting options vary, and a wide variety of charts are included so you can create the best visual representation of the data in your system as possible.

Using Accolade online report data, users with All Reporting Rights can create charts on the **Charts & Reports** page. Administrators and Process Designers can set charts as available for sharing with other users, and can add a chart to a pod within a layout to display on a project page or as a global link.

Creating Bar Charts Based on Report Data

Bar charts use bars to represent and compare categories of data in a format that can be displayed horizontally or vertically. One axis will generally have numerical values, and the other will describe the types of categories being compared. In bar charts, the user can cycle through different views, that is, different categories of data to get a more comprehensive view of a portfolio's performance using the cycle icon .

Important! Select appropriate data types to render a meaningful chart. Numeric data types will chart bars successfully. The system will not prevent you from selecting different data types and will plot selected data as best as possible without error.

To create a bar chart based on report data:

1. From the **Workspace** menu, select **Charts & Reports**.

   To narrow the list, search by the chart name or category.

   Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

2. Do one of the following:
   - **To add a new chart** - Click **Add New**, select **Chart** from the drop-down list, and click the Bar Chart icon.
   - **To edit the details of an existing report** - Click the name of the chart on the **Charts & Reports** page and click to edit the report details. Only users assigned as chart owners and Process Designers with All Reporting Rights can edit chart details.

3. Enter the following information to identify the chart:

   Required fields display with **red** text and an asterisk * if the field is empty.

Field	Description
Name	Enter a name, up to 64 characters long, which identifies the chart. To display this name as the chart's title, select the **Display as title** option.
System Name	Enter a unique, shorter name that identifies the chart in queries, reporting views, field codes, and other places in Accolade. The name must be unique among charts and can contain only letters (English alphabet), numbers, and the underscore.
Category	Enter or select the group to which this chart belongs. Use categories to organize like charts together. For example, you may choose to group all the charts used in global layouts into the same category, in order to separate them from charts that are used in process model layouts or other reporting. • Leave this field blank to add to the **Default** category. • To define a new category, select **New Category** and enter the category name. • To delete a category, remove every item from the category. Empty categories are deleted automatically.
Description	Enter a description of the purpose or nature of the chart. This description helps other users identify the chart on the **Charts & Reports** page.
Owners	Click and select the additional users who can edit the chart details. To filter the list of users, enter one or more search criteria to filter by name, login name, email address, function, or extended field. • Clicking **Select current user** will assign the role to the current user (if they have the appropriate rights). • Selecting a **Function** in the drop-down will display available users that are assigned to the function. The current selection defaults to the function to which you are assigning a user, however depending on the project configuration, you can assign any user. • Clicking the **Show advanced filters** check box displays or hides the additional filter options. • Clicking **Clear** removes the current user assignment and displays **[None]** to indicate that no user is assigned. An assigned owner with All Reporting Rights can view,

Field	Description
	update, delete, or add additional owners to the chart. An assigned owner who has Refresh Workbook Data rights will only be able to view the chart. To make the chart available for all users or for configuration setup, you must have a Process Designer with All Reporting Rights as an assigned owner.

4. *(All optional, available in configuration only)* Enter the following information to make the chart publicly available.

Field	Description
Available to Charts & Reports	Select this check box to make the chart publicly available for users to access and view the chart. Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart in the **Shared Charts & Reports** section on the **Charts & Reports** page.
Available to Configuration	Select this check box to make the chart available for use in configuration.
Specific Roles	Select the system user roles that have access to view the chart. Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart on the **Charts & Reports** page.
Configuration Access Groups	When either **Available to** check box is checked, access groups must be defined for the chart. The access groups displayed are based on the current user's access group permissions and the access groups the chart belongs to. Additionally, Process Designers with matching permissions will be able to edit and view the chart.
Process Model Usage	*(Available for existing charts)* Click on the **Process Model Usage** button to see a list of process models that the online chart is associated with. The list displayed includes all process models the chart is included in, as well as links to the process model's component tree pages you have Edit access to.

Note: Clicking either **Available to** check box will place the chart in the **Shared Charts & Reports** section of the **Charts & Reports** page. If neither check box is selected, the chart will only be available to the assigned owners in their **My Charts & Reports** section.

5. In the **Report Source** field, select the report that contains the data to include in the chart. Only online reports created in Accolade are available for selection.
6. In the **Grouping** field, select the column from the report that represents the data and measurement values to plot on the chart.
   - *(Optional)* To use the column names as labels for each axis, select the **Display Axis Label** option for one or both axes.
   - *(Optional)* In the **Number Format** drop-down, select an option to indicate how values for the selected grouping display.
7. In the **Bar** field, select the column from the report that represents the data and measurement values to plot on the chart.
   - The chart draws negative and positive data points as greater than or less than a zero-value line. If charting only positive values, the chart draws bars as greater than zero.
   - If a column within the report contains a selected **Aggregate** value, the aggregation displays automatically when the report column is selected to display in a chart.
   - *(Optional)* To use the column names as labels for each axis, select the **Display Axis Label** option for one or both axes.
   - *(Optional)* To display grid lines for the vertical axis, select the **Show Grid Lines** option.
   - *(Optional)* To display values on the bars in the chart, select **Display totals**.
   - *(Optional)* In the **Number Format** drop-down, select an option to indicate how values for the bars display.
8. In the **Cycles** field, select one or many cycles. Each cycle displays a different grouping of data that the bars represent. The Grouping selection is automatically selected and cannot be unselected.
9. Enter the following information to alter the chart display:

Field	Description
Display Type	Select whether the bars display horizontally or vertically. The chart rotates according to the display type. Number formats specified in the report will also rotate since they apply to the data and not the axis. If the contents of your report produces enough bars that the labels along the horizontal axis overlap, select the **Rotate Horizontal Axis Text** option to display the labels at an angle instead of horizontally to prevent overlapping.
Color Theme	Select the color palette to assign to the bars. If plotting 10 or more data points, consider a color theme to accommodate each value measurement. Themes 2-5 allow for up to 20-25 plotted values.

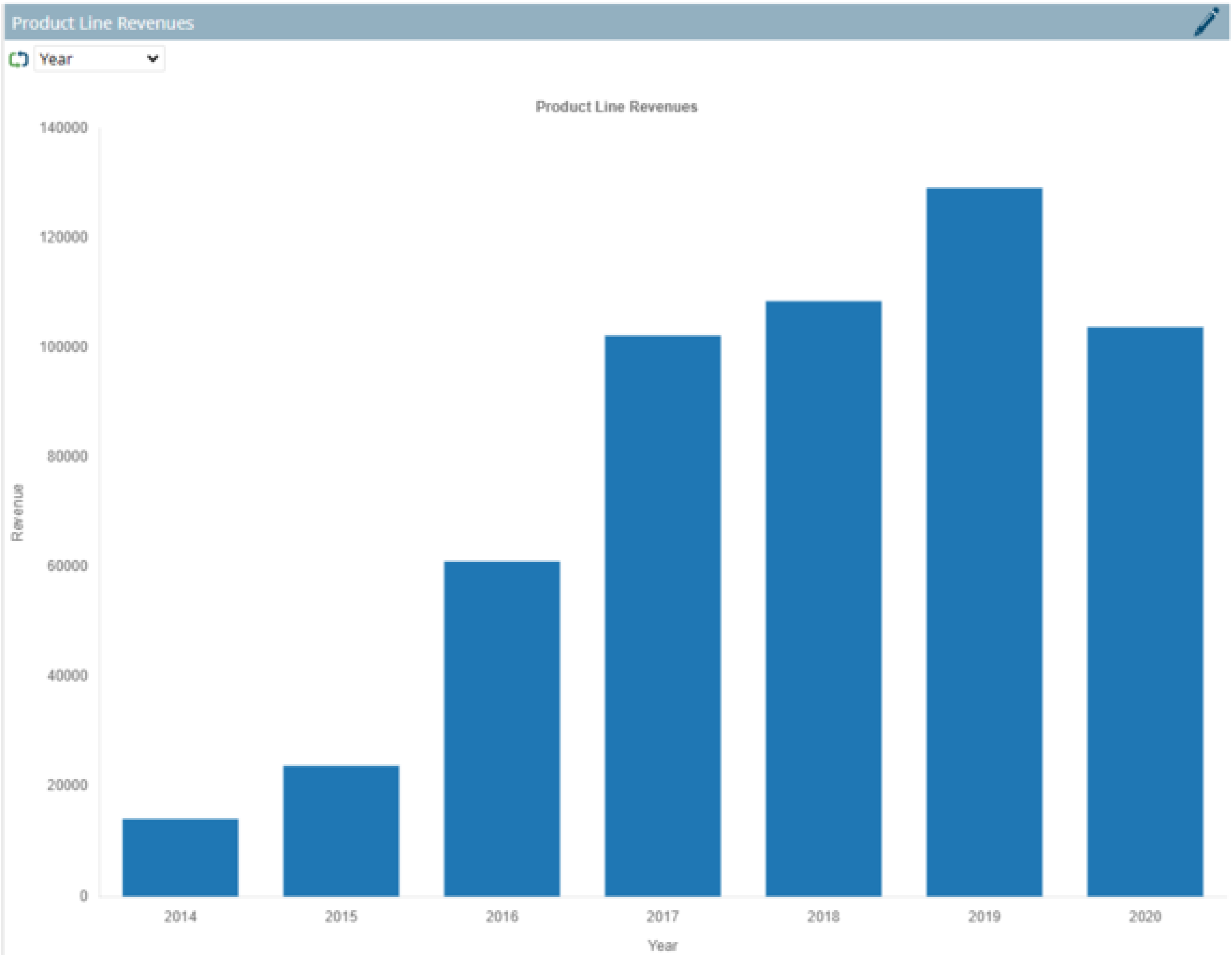
10. *(Optional)* Add target lines to display on the chart.
11. *(Optional)* If you edited an existing chart, click in the upper right corner to view the new chart.
12. Click **Save** to save your changes and create the chart.

Example - Creating Bar Charts in Accolade

For example, a user wants to review and compare the revenue by region for a portfolio of products over the last several years. The user has created a Product Line Revenues Report for their report source, and selected the **Product Lines**, **Revenue**, **Region**, and **Year** metrics to be included in the report.

To create a bar chart to display this information, the user has selected the **Year** for the **Grouping** value and the **Revenue** as the **Bar** value. The bars represent the yearly sales values of various products.

To create a bar chart to display this information and cycle through the metrics for different chart views, the user has selected the **Year** for the **Grouping**, the **Revenue** for the **Bar**, and the **Product Lines**, **Revenue**, and **Region** as the **Cycles** values. The Product Lines in the report represent the business units of Desktop, Tablets, Peripherals, Servers, and Mobile. The bars represent the yearly sales values of the various products. Select the cycle icon to view the different charts.



Notes:

- To delete a saved chart, display the chart from the **Charts & Reports** page, click the pencil icon to display the chart settings, and click **Delete** at the bottom of the page. Only the chart owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the chart.
- If the **Replace Empty Value** system parameter is set to **0**, charts may render inconsistently due to empty or missing data returned by the report.
- Reporting Rights are not required to view the chart in a page layout; however a user must be an owner or have at least one matching user role for the chart to display in the layout.
- Before creating the chart, the user selects the sort order of the data in the associated report.
- Use the **Currency Symbol** system parameter to specify the currency symbol that displays in the **Number Format** field when creating charts and reports.

Creating Grouped Bar Charts Based on Report Data

Grouped bar charts use bars to represent and compare different categories of two or more sets of data in a format that display horizontally or vertically. Because the categories are grouped and arranged side by side, the grouped bar arrangement allows users to visually represent the differences inside a group. The grouped bar chart can be used to showcase differences in the same category across groups. Generally, in the chart, one axis has a value such as a product line, the other axis has numerical values such as revenue, and the bar segments show categories to be compared. In grouped bar charts, the user can cycle through different views, that is, different categories of data to get a more comprehensive view of a portfolio's performance using the cycle icon .

Important! Select appropriate data types to render a meaningful chart. Numeric data types will chart bars successfully. The system will not prevent you from selecting different data types and will plot selected data as best as possible without error.

To create a grouped bar chart based on report data:

1. From the **Workspace** menu, select **Charts & Reports**.

   To narrow the list, search by the chart name or category.

   Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

2. Do one of the following:
   - **To add a new chart** - Click **Add New**, select **Chart** from the drop-down list, and click the Grouped Bar Chart icon.
   - **To edit the details of an existing report** - Click the name of the chart on the **Charts & Reports** page and click to edit the report details. Only users assigned as chart owners and Process Designers with All Reporting Rights can edit chart details.

3. Enter the following information to identify the chart:

   Required fields display with **red** text and an asterisk * if the field is empty.

Field	Description
Name	Enter a name, up to 64 characters long, which identifies the chart. To display this name as the chart's title, select the **Display as title** option.
System Name	Enter a unique, shorter name that identifies the chart in queries, reporting views, field codes, and other places in Accolade.

<table>
<tr><th>Field</th><th>Description</th></tr>
<tr><td></td><td>The name must be unique among charts and can contain only letters (English alphabet), numbers, and the underscore.</td></tr>
<tr><td>Category</td><td>Enter or select the group to which this chart belongs.

Use categories to organize like charts together. For example, you may choose to group all the charts used in global layouts into the same category, in order to separate them from charts that are used in process model layouts or other reporting.
Leave this field blank to add to the Default category.
To define a new category, select New Category and enter the category name.
To delete a category, remove every item from the category. Empty categories are deleted automatically.</td></tr>
<tr><td>Description</td><td>Enter a description of the purpose or nature of the chart.

This description helps other users identify the chart on the Charts & Reports page.</td></tr>
<tr><td>Owners</td><td>Click and select the additional users who can edit the chart details.

To filter the list of users, enter one or more search criteria to filter by name, login name, email address, function, or extended field.
Clicking Select current user will assign the role to the current user (if they have the appropriate rights).
Selecting a Function in the drop-down will display available users that are assigned to the function. The current selection defaults to the function to which you are assigning a user, however depending on the project configuration, you can assign any user.
Clicking the Show advanced filters check box displays or hides the additional filter options.
Clicking Clear removes the current user assignment and displays [None] to indicate that no user is assigned.
An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the chart. An assigned owner who has Refresh Workbook Data rights will only be able to view the chart. To make the chart available for all users or for configuration setup, you must have a Process Designer with All Reporting Rights as an assigned owner.</td></tr>
</table>

4. *(All optional, available in configuration only)* Enter the following information to make the chart publicly available.

Field	Description
Available to Charts & Reports	Select this check box to make the chart publicly available for users to access and view the chart. Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart in the **Shared Charts & Reports** section on the **Charts & Reports** page.
Available to Configuration	Select this check box to make the chart available for use in configuration.
Specific Roles	Select the system user roles that have access to view the chart. Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart on the **Charts & Reports** page.
Configuration Access Groups	When either **Available to** check box is checked, access groups must be defined for the chart. The access groups displayed are based on the current user's access group permissions and the access groups the chart belongs to. Additionally, Process Designers with matching permissions will be able to edit and view the chart.
Process Model Usage	*(Available for existing charts)* Click on the **Process Model Usage** button to see a list of process models that the online chart is associated with. The list displayed includes all process models the chart is included in, as well as links to the process model's component tree pages you have Edit access to.

Note: Clicking either **Available to** check box will place the chart in the **Shared Charts & Reports** section of the **Charts & Reports** page. If neither check box is selected, the chart will only be available to the assigned owners in their **My Charts & Reports** section.

5. In the **Report Source** field, select the report that contains the data to include in the chart. Only online reports created in Accolade are available for selection.

6. In the **Horizontal Axis** field, select the column from the report that represents the data and measurement values to plot on the chart.

   - The chart draws negative and positive data points as greater than or less than a zero-value line. If charting only positive values, the chart draws bars as greater than zero.

- If a column within the report contains a selected **Aggregate** value, the aggregation displays automatically when the report column is selected to display in a chart.
- *(Optional)* To use the column name as a label for the axis, select the **Display axis label** option.
- *(Optional)* In the **Number Format** drop-down, select an option to indicate how values for the selected column display.

7. *(Optional)* In the **Vertical Axis** field, select the column from the report that represents the data and measurement values to plot on the chart.
   - The chart draws negative and positive data points as greater than or less than a zero-value line. If charting only positive values, the chart draws bars as greater than zero.
   - If a column within the report contains a selected **Aggregate** value, the aggregation displays automatically when the report column is selected to display in a chart.
   - *(Optional)* To use the column name as a label for the axis, select the **Display axis label** option.
   - *(Optional)* In the **Number Format** drop-down, select an option to indicate how values for the selected column display.
   - The **Bars** field displays a drop-down list to select one column.
8. In the **Bars** field, the user can select one or more columns from the report that represent each bar within a group.
   - If the user selected a **Vertical Axis**, then the user must select one column only from the **Column** drop-down list. The chart renders by rows.
   - If the user did not select a **Vertical Axis**, then the user can select multiple columns from the box. The chart renders by columns.
9. Enter the following information to alter the chart display:

Field	Description
Bar Axis Units	Enter text to display as the vertical axis label.
Cycle Segments	**Horizontal Axis** and **Bars** determines how the cycles are mapped on the chart. **Horizontal Axis** uses the selected cycle as the basis for the horizontal axis. **Bars** maps the selected cycle to the vertical bars.
Cycles	Select one or many cycles. Each cycle displays a different column of data that the grouped bars represent. The Horizontal Axis selection is automatically selected and cannot be unselected.
Display Type	Select whether the bars display horizontally or vertically. The chart rotates according to the display type. Number formats specified in the report will also rotate since they apply to the data and not the axis.

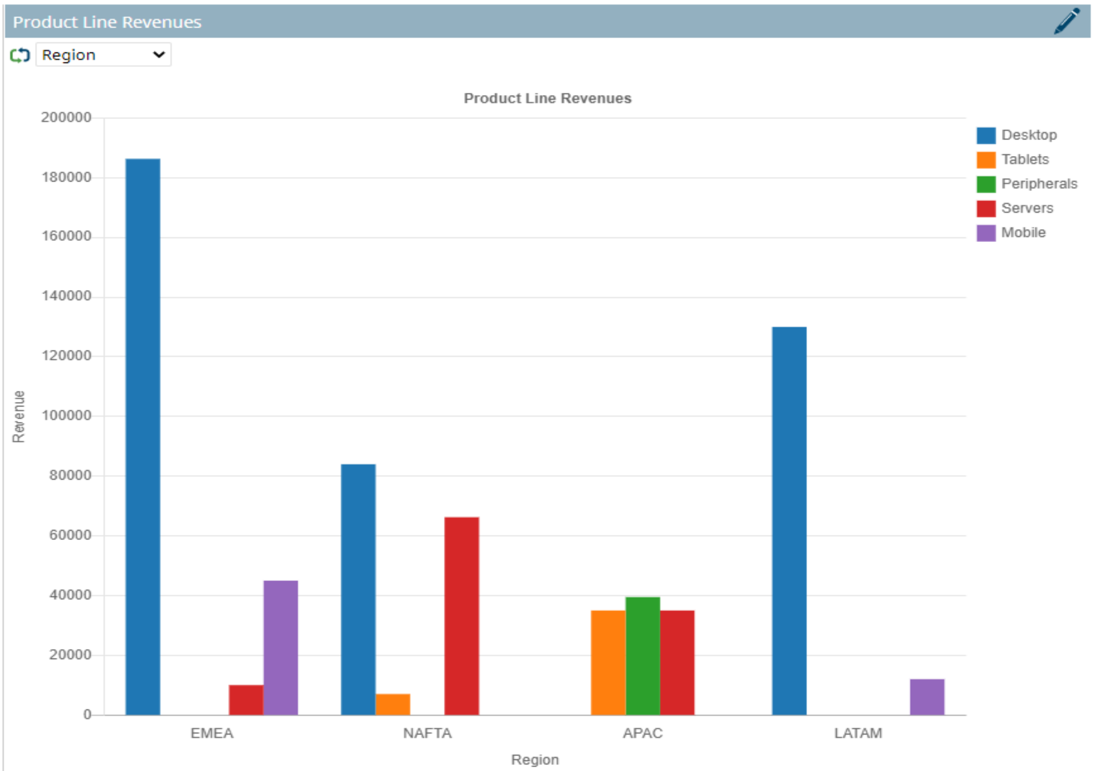
Field	Description
	If the contents of your report produces enough bars that the horizontal axis labels overlap, select the **Rotate Horizontal Axis Text** option to display the labels at an angle instead of horizontally to prevent overlapping.
Number Format	Select a number formatting option to indicate how values within the chart are displayed.
Legend	Select where in the chart to display the key that identifies what the colors in the chart represent. After the chart renders, toggle a key label in the legend to hide and show data without changing the underlying chart and report configuration.
Color Theme	Select the color palette to assign to the bars. If plotting 10 or more data points, consider a color theme to accommodate each value measurement. Themes 2-5 allow for up to 20-25 plotted values.

10. *(Optional)* Add target lines to display on the chart.
11. *(Optional)* If you edited an existing chart, click in the upper right corner to view the new chart.
12. Click **Save** to save your changes and create the chart.

Example - Creating Grouped Bar Charts in Accolade

For example, a user wants to review and compare the revenue by region for a portfolio of products over the last several years. The user has created a Product Line Revenues Report for their report source, and selected the **Product Lines**, **Region**, **Year**, and **Revenue** metrics to be included in the report.

To create a grouped bar chart to display this information, the user has selected the **Region** for the **Horizontal Axis**, the **Revenue** for the **Vertical Axis**, the **Product Lines** as the **Bars** value, and **Product Lines**, **Revenue**, and **Year** as the **Cycles** values. The Product Lines in the report represent the business units of Desktop, Mobile, Peripherals, Servers, and Tablets. The bars represent the sales values of various products. Select the cycle icon to view the different charts. Toggle a key label in the legend to hide and show data in the rendered chart.



Notes:

- To delete a saved chart, display the chart from the **Charts & Reports** page, click ✎ to display the chart settings, and click **Delete** at the bottom of the page. Only the chart owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the chart.
- If the **Replace Empty Value** system parameter is set to **0**, charts may render inconsistently due to empty or missing data returned by the report.
- Reporting Rights are not required to view the chart in a page layout; however a user must be an owner or have at least one matching user role for the chart to display in the layout.
- Before creating the chart, the user selects the sort order of the data in the associated report.
- Use the **Currency Symbol** system parameter to specify the currency symbol that displays in the **Number Format** field when creating charts and reports.

Creating Stacked Bar Charts Based on Report Data

Stacked bar charts use a single bar to represent multiple categories of data in a format that display horizontally or vertically. Because the categories are arranged in a stack, the stacked bar arrangement allows users to visually represent and compare total sizes of bars and relative differences in categories. The stacked bar chart can be used to showcase when one category overtakes another. Generally, in the chart, one axis has a value such as a product line, the other axis has numerical values such as revenue, and the bar segments show categories to be compared. In stacked bar charts, the user can cycle through different views, that is, different categories of data to get a more comprehensive view of a portfolio's performance using the cycle icon .

Important! Select appropriate data types to render a meaningful chart. Numeric data types will chart bars successfully. The system will not prevent you from selecting different data types and will plot selected data as best as possible without error.

To create a stacked bar chart based on report data:

1. From the **Workspace** menu, select **Charts & Reports**.

   To narrow the list, search by the chart name or category.

   Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

2. Do one of the following:
   - **To add a new chart** - Click **Add New**, select **Chart** from the drop-down list, and click the Stacked Bar Chart icon.
   - **To edit the details of an existing report** - Click the name of the chart on the **Charts & Reports** page and click to edit the report details. Only users assigned as chart owners and Process Designers with All Reporting Rights can edit chart details.

3. Enter the following information to identify the chart:

   Required fields display with **red** text and an asterisk * if the field is empty.

Field	Description
Name	Enter a name, up to 64 characters long, which identifies the chart. To display this name as the chart's title, select the **Display as title** option.
System Name	Enter a unique, shorter name that identifies the chart in queries, reporting views, field codes, and other places in Accolade. The name must be unique among charts and can contain only letters (English alphabet), numbers, and the underscore.
Category	Enter or select the group to which this chart belongs. Use categories to organize like charts together. For example, you may choose to group all the charts used in global layouts into the same category, in order to separate them from charts that are used in process model layouts or other reporting.

Field	Description
	• Leave this field blank to add to the **Default** category. • To define a new category, select **New Category** and enter the category name. • To delete a category, remove every item from the category. Empty categories are deleted automatically.
Description	Enter a description of the purpose or nature of the chart. This description helps other users identify the chart on the **Charts & Reports** page.
Owners	Click and select the additional users who can edit the chart details. To filter the list of users, enter one or more search criteria to filter by name, login name, email address, function, or extended field. • Clicking **Select current user** will assign the role to the current user (if they have the appropriate rights). • Selecting a **Function** in the drop-down will display available users that are assigned to the function. The current selection defaults to the function to which you are assigning a user, however depending on the project configuration, you can assign any user. • Clicking the **Show advanced filters** check box displays or hides the additional filter options. • Clicking **Clear** removes the current user assignment and displays **[None]** to indicate that no user is assigned. An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the chart. An assigned owner who has Refresh Workbook Data rights will only be able to view the chart. To make the chart available for all users or for configuration setup, you must have a Process Designer with All Reporting Rights as an assigned owner.

4. *(All optional, available in configuration only)* Enter the following information to make the chart publicly available.

Field	Description
Available to Charts & Reports	Select this check box to make the chart publicly available for users to access and view the chart.

Field	Description
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart in the **Shared Charts & Reports** section on the **Charts & Reports** page.
Available to Configuration	Select this check box to make the chart available for use in configuration.
Specific Roles	Select the system user roles that have access to view the chart. Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart on the **Charts & Reports** page.
Configuration Access Groups	When either **Available to** check box is checked, access groups must be defined for the chart. The access groups displayed are based on the current user's access group permissions and the access groups the chart belongs to. Additionally, Process Designers with matching permissions will be able to edit and view the chart.
Process Model Usage	*(Available for existing charts)* Click on the **Process Model Usage** button to see a list of process models that the online chart is associated with. The list displayed includes all process models the chart is included in, as well as links to the process model's component tree pages you have Edit access to.

Note: Clicking either **Available to** check box will place the chart in the **Shared Charts & Reports** section of the **Charts & Reports** page. If neither check box is selected, the chart will only be available to the assigned owners in their **My Charts & Reports** section.

5. In the **Report Source** field, select the report that contains the data to include in the chart. Only online reports created in Accolade are available for selection.
6. In the **Horizontal Axis** field, select the column from the report that represents the data and measurement values to plot on the chart.
   - The chart draws negative and positive data points as greater than or less than a zero-value line. If charting only positive values, the chart draws bars as greater than zero.
   - If a column within the report contains a selected **Aggregate** value, the aggregation displays automatically when the report column is selected to display in a chart.
   - *(Optional)* To use the column name as a label for the axis, select the **Display axis label** option.
   - *(Optional)* In the **Number Format** drop-down, select an option to indicate how values for the selected column display.

7. *(Optional)* In the **Vertical Axis** field, select the column from the report that represents the data and measurement values to plot on the chart.
   - The chart draws negative and positive data points as greater than or less than a zero-value line. If charting only positive values, the chart draws bars as greater than zero.
   - If a column within the report contains a selected **Aggregate** value, the aggregation displays automatically when the report column is selected to display in a chart.
   - *(Optional)* To use the column name as a label for the axis, select the **Display axis label** option.
   - *(Optional)* In the **Number Format** drop-down, select an option to indicate how values for the selected column display.
   - The **Bar Segments** field displays a drop-down list to select one column.
8. In the **Bar Segments** field, the user can select one or more columns from the report that correlate to the stacked sections of the bars.
   - If the user selected a **Vertical Axis**, then the user must select one column only from the **Column** drop-down list. The chart renders by rows.
   - If the user did not select a **Vertical Axis**, then the user can select multiple columns from the box. The chart renders by columns.
   - Check one or both check boxes to display values.
     - Select **Stacked to 100%** to display the bar segments as percentages of the whole rather than integer values.
     - Select **Display totals** to include the total value for the entire bar after the last segment.
9. Enter the following information to alter the chart display:

Field	Description
Bar Axis Units	Enter text to display as the vertical axis label.
Cycle Segments	**Horizontal Axis** and **Bars** determines how the cycles are mapped on the chart. **Horizontal Axis** uses the selected cycle as the basis for the horizontal axis. **Bars** maps the selected cycle to the bar segments.
Cycles	Select one or many cycles. Each cycle displays a different segment of data that the stacked bars represent. The Horizontal Axis selection is automatically selected and cannot be unselected.
Display Type	Select whether the bars display horizontally or vertically. The chart rotates according to the display type. Number formats specified in the report will also rotate since they apply to the data and not the axis. If the contents of your report produce enough bars that

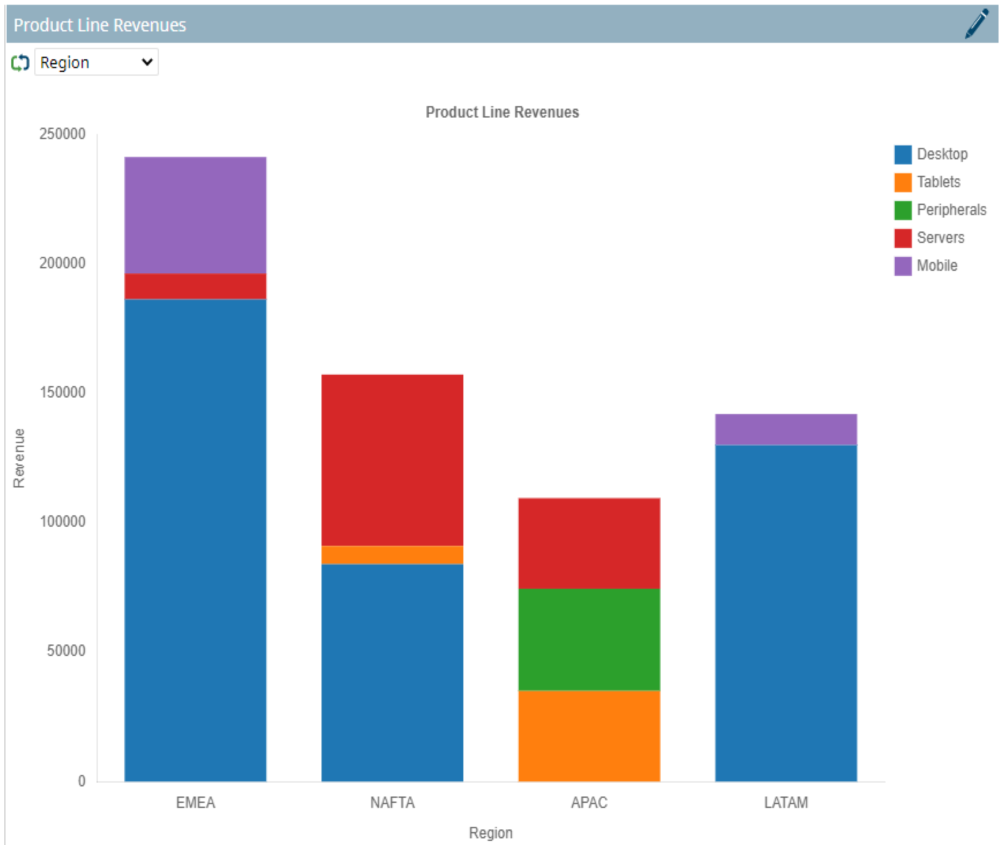
Field	Description
	the horizontal axis labels overlap, select the **Rotate Horizontal Text** option to display the labels at an angle instead of horizontally to prevent overlapping.
Number Format	Select a number formatting option to indicate how values within the chart are displayed.
Legend	Select where in the chart to display the key that identifies what the colors in the chart represent. After the chart renders, toggle a key label in the legend to hide and show data without changing the underlying chart and report configuration.
Color Theme	Select the color palette to assign to the bars. If plotting 10 or more data points, consider a color theme to accommodate each value measurement. Themes 2-5 allow for up to 20-25 plotted values.

10. *(Optional)* Add target lines to display on the chart.
11. *(Optional)* If you edited an existing chart, click in the upper right corner to view the new chart.
12. Click **Save** to save your changes and create the chart.

Example - Creating Stacked Bar Charts in Accolade

For example, a user wants to review and compare the revenue by region for a portfolio of products over the last several years. The user has created a Product Line Revenues Report for their report source, and selected the **Product Lines**, **Region**, **Year**, and **Revenue** metrics to be included in the report.

To create a stacked bar chart to display this information and cycle through the metrics for different chart views, the user has selected the **Region** for the **Horizontal Axis**, the **Revenue** for the **Vertical Axis**, the **Product Lines** as the **Bar Segments** value, and **Product Lines**, **Revenue**, and **Year** as the **Cycles** values. The Product Lines in the report represent the business units of Desktop, Tablets, Peripherals, Servers, and Mobile. The bar segments represent the various products by category across region and revenue over several years. Select the cycle icon to view the different charts. Toggle a key label in the legend to hide and show data in the rendered chart.



Notes:

- To delete a saved chart, display the chart from the **Charts & Reports** page, click ✏ to display the chart settings, and click **Delete** at the bottom of the page. Only the chart owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the chart.
- If the **Replace Empty Value** system parameter is set to **0**, charts may render inconsistently due to empty or missing data returned by the report.
- Reporting Rights are not required to view the chart in a page layout; however a user must be an owner or have at least one matching user role for the chart to display in the layout.
- Before creating the chart, the user selects the sort order of the data in the associated report.
- Use the **Currency Symbol** system parameter to specify the currency symbol that displays in the **Number Format** field when creating charts and reports.

Creating Bubble Charts Based on Report Data

Bubble charts (also known as bubble plots) are multi-dimensional graphs that are a cross between a scatter plot and a proportional area chart, and can be useful for comparing the relationships between projects in multiple dimensions. Data points are plotted against a horizontal and vertical axis, and then have additional data values represented by the size and color of the bubble. In bubble charts, the user can cycle through different views, that is, different categories of data to get a more comprehensive view of a portfolio's performance using the cycle icon .

Important! Select numeric data types for **Bubble Represents** values to render a meaningful chart. The system will not prevent you from selecting different data types and will plot selected data as best as possible without error.

To create a bubble chart based on report data:

1. From the **Workspace** menu, select **Charts & Reports**.

   To narrow the list, search by the chart name or category.

   Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

2. Do one of the following:
   - **To add a new chart** - Click **Add New**, select **Chart** from the drop-down list, and click the Bubble Chart icon.
   - **To edit the details of an existing report** - Click the name of the chart on the **Charts & Reports** page and click to edit the report details. Only users assigned as chart owners and Process Designers with All Reporting Rights can edit chart details.

3. Enter the following information to identify the chart:

   Required fields display with **red** text and an asterisk * if the field is empty.

Field	Description
Name	Enter a name, up to 64 characters long, which identifies the chart. To display this name as the chart's title, select the **Display as title** option.
System Name	Enter a unique, shorter name that identifies the chart in queries, reporting views, field codes, and other places in Accolade. The name must be unique among charts and can contain only letters (English alphabet), numbers, and the underscore.
Category	Enter or select the group to which this chart belongs.

Field	Description
	Use categories to organize like charts together. For example, you may choose to group all the charts used in global layouts into the same category, in order to separate them from charts that are used in process model layouts or other reporting. • Leave this field blank to add to the **Default** category. • To define a new category, select **New Category** and enter the category name. • To delete a category, remove every item from the category. Empty categories are deleted automatically.
Description	Enter a description of the purpose or nature of the chart. This description helps other users identify the chart on the **Charts & Reports** page.
Owners	Click and select the additional users who can edit the chart details. To filter the list of users, enter one or more search criteria to filter by name, login name, email address, function, or extended field. • Clicking **Select current user** will assign the role to the current user (if they have the appropriate rights). • Selecting a **Function** in the drop-down will display available users that are assigned to the function. The current selection defaults to the function to which you are assigning a user, however depending on the project configuration, you can assign any user. • Clicking the **Show advanced filters** check box displays or hides the additional filter options. • Clicking **Clear** removes the current user assignment and displays **[None]** to indicate that no user is assigned. An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the chart. An assigned owner who has Refresh Workbook Data rights will only be able to view the chart. To make the chart available for all users or for configuration setup, you must have a Process Designer with All Reporting Rights as an assigned owner.

4. *(All optional, available in configuration only)* Enter the following information to make the chart publicly available.

Field	Description
Available to Charts & Reports	Select this check box to make the chart publicly available for users to access and view the chart. Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart in the **Shared Charts & Reports** section on the **Charts & Reports** page.
Available to Configuration	Select this check box to make the chart available for use in configuration.
Specific Roles	Select the system user roles that have access to view the chart. Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart on the **Charts & Reports** page.
Configuration Access Groups	When either **Available to** check box is checked, access groups must be defined for the chart. The access groups displayed are based on the current user's access group permissions and the access groups the chart belongs to. Additionally, Process Designers with matching permissions will be able to edit and view the chart.
Process Model Usage	*(Available for existing charts)* Click on the **Process Model Usage** button to see a list of process models that the online chart is associated with. The list displayed includes all process models the chart is included in, as well as links to the process model's component tree pages you have Edit access to.

Note: Clicking either **Available to** check box will place the chart in the **Shared Charts & Reports** section of the **Charts & Reports** page. If neither check box is selected, the chart will only be available to the assigned owners in their **My Charts & Reports** section.

5. In the **Report Source** field, select the report that contains the data to include in the chart. Only online reports created in Accolade are available for selection.
6. In the **Horizontal Axis** and **Vertical Axis** fields, select the columns from the report that represent the data and measurement values to plot on the chart.
   - *(Optional)* To use the column names as labels for each axis, select the **Display Axis Label** option for one or both axes.
   - *(Optional)* To display grid lines for the horizontal and vertical axis, select the **Show Grid Lines** option.
   - *(Optional)* Select the **Rotate Horizontal Axis Text** option to display the labels at an angle instead of horizontally to prevent overlapping.

- *(Optional)* In the **Number Format** drop-down, select an option to indicate how values on the axis are displayed.
- *(Optional)* In **Scale Control**, change the scaling and size of the displayed chart by selecting one of the following options:
  - Select **Automatic** to set the chart range minimum and maximum values displayed in the chart based on the data ranges in the report.
  - Select **Custom** to manually set the chart **Range Minimum** and **Range Maximum** values displayed in the chart.

7. Select the following information to define what the bubbles within the chart represent:

Field	Description
Bubble Size	Select a number metric from the report that determines the size of each bubble in the chart.
Number Format	Select how values display within the tooltip for the bubbles in the chart.
Bubble Represents	Select the information that displays within the tooltip for the bubbles in the chart. Selecting **[None]** displays only the bubble's value in the tooltip.
Bubble Color	Select the column that determines what each color represents in the chart.
Bubble Opacity	Select how solid to display the bubbles in the chart. Using a smaller value displays the bubbles less opaque, and can make each easier to see if bubbles overlap in the chart.
Cycles	Select one or many cycles. Each cycle displays a different grouping of data that the bubbles represent. The Bubble Color selection is automatically selected and cannot be unselected.
Color Theme	Select the color palette to assign to the bubbles in the chart.
Legend	Select where in the chart to display the key that identifies what the bubble colors in the chart represent. After the chart renders, toggle a key label in the legend to hide and show data without changing the underlying chart and report configuration.

8. *(Optional)* If you edited an existing chart, click in the upper right corner to view the new chart.
9. Click **Save** to save your changes and create the chart.

Example - Creating Bubble Charts in Accolade

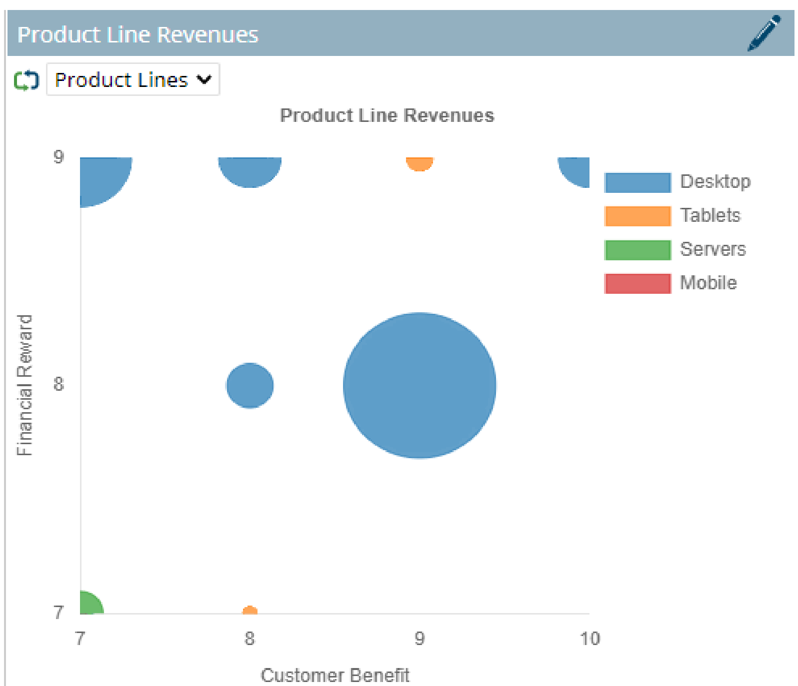
For example, a user wants to review and compare the financial reward and customer benefit by region for a portfolio of products over the last several years. The user has created a Product Line Revenues

Report for their report source, and selected the **Product Lines**, **Region**, **Revenue**, **Year**, **Financial Reward**, and **Customer Benefit** metrics to be included in the report.

To create a bubble chart to display this information and cycle through the metrics for different chart views, the user has selected:

- **Horizontal Axis** - Customer Benefit
- **Vertical Axis** - Financial Reward
- **Bubble Size** - Revenue
- **Bubble Represents** - Region
- **Bubble Color** - Product Lines
- **Cycles** - Year and Region

The Product Lines in the report represent the business units of Desktop, Tablets, Peripherals, Servers, and Mobile. The bubbles represent the various products by category across region and revenue over several years. The bubble location on the chart shows the high customer benefit and financial reward in the upper right corner and low values in the lower left corner to help you identify possible investments. Select the cycle icon to view the different charts. Toggle a key label in the legend to hide and show data in the rendered chart.



Notes:

- To delete a saved chart, display the chart from the **Charts & Reports** page, click to display the chart settings, and click **Delete** at the bottom of the page. Only the chart owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the chart.

- If the **Replace Empty Value** system parameter is set to **0**, charts may render inconsistently due to empty or missing data returned by the report.
- Reporting Rights are not required to view the chart in a page layout; however a user must be an owner or have at least one matching user role for the chart to display in the layout.
- Use the **Currency Symbol** system parameter to specify the currency symbol that displays in the **Number Format** field when creating charts and reports.

Creating Line Chart by Columns Charts Based on Report Data

Line Chart by Columns charts are created by connecting a series of data points together with a solid line, and can be used to display or analyze trends or patterns in data.

Important! Select appropriate data types to render a meaningful chart. Numeric data types will chart lines successfully. The system will not prevent you from selecting different data types and will plot selected data as best as possible without error.

To create a line chart by columns chart based on report data:

1. From the **Workspace** menu, select **Charts & Reports**.

   To narrow the list, search by the chart name or category.

   Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

2. Do one of the following:
   - **To add a new chart** - Click **Add New**, select **Chart** from the drop-down list, and click the Line Chart by Columns icon.
   - **To edit the details of an existing report** - Click the name of the chart on the **Charts & Reports** page and click to edit the report details. Only users assigned as chart owners and Process Designers with All Reporting Rights can edit chart details.

3. Enter the following information to identify the chart:

   Required fields display with red text and an asterisk * if the field is empty.

Field	Description
Name	Enter a name, up to 64 characters long, which identifies the chart.

Field	Description
	To display this name as the chart's title, select the **Display as title** option.
System Name	Enter a unique, shorter name that identifies the chart in queries, reporting views, field codes, and other places in Accolade. The name must be unique among charts and can contain only letters (English alphabet), numbers, and the underscore.
Category	Enter or select the group to which this chart belongs. Use categories to organize like charts together. For example, you may choose to group all the charts used in global layouts into the same category, in order to separate them from charts that are used in process model layouts or other reporting. • Leave this field blank to add to the **Default** category. • To define a new category, select **New Category** and enter the category name. • To delete a category, remove every item from the category. Empty categories are deleted automatically.
Description	Enter a description of the purpose or nature of the chart. This description helps other users identify the chart on the **Charts & Reports** page.
Owners	Click and select the additional users who can edit the chart details. To filter the list of users, enter one or more search criteria to filter by name, login name, email address, function, or extended field. • Clicking **Select current user** will assign the role to the current user (if they have the appropriate rights). • Selecting a **Function** in the drop-down will display available users that are assigned to the function. The current selection defaults to the function to which you are assigning a user, however depending on the project configuration, you can assign any user. • Clicking the **Show advanced filters** check box displays or hides the additional filter options. • Clicking **Clear** removes the current user assignment and displays **[None]** to indicate that no user is assigned. An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the chart. An assigned owner who has Refresh Workbook Data rights will only be able to view the chart. To make the

Field	Description
	chart available for all users or for configuration setup, you must have a Process Designer with All Reporting Rights as an assigned owner.

4. *(All optional, available in configuration only)* Enter the following information to make the chart publicly available.

Field	Description
Available to Charts & Reports	Select this check box to make the chart publicly available for users to access and view the chart. Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart in the **Shared Charts & Reports** section on the **Charts & Reports** page.
Available to Configuration	Select this check box to make the chart available for use in configuration.
Specific Roles	Select the system user roles that have access to view the chart. Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart on the **Charts & Reports** page.
Configuration Access Groups	When either **Available to** check box is checked, access groups must be defined for the chart. The access groups displayed are based on the current user's access group permissions and the access groups the chart belongs to. Additionally, Process Designers with matching permissions will be able to edit and view the chart.
Process Model Usage	*(Available for existing charts)* Click on the **Process Model Usage** button to see a list of process models that the online chart is associated with. The list displayed includes all process models the chart is included in, as well as links to the process model's component tree pages you have Edit access to.

Note: Clicking either **Available to** check box will place the chart in the **Shared Charts & Reports** section of the **Charts & Reports** page. If neither check box is selected, the chart will only be available to the assigned owners in their **My Charts & Reports** section.

5. In the **Report Source** field, select the report that contains the data to include in the chart. Only online reports created in Accolade are available for selection.

6. In the **Line Represents** and **Columns** fields, select the columns from the report that represent the data and measurement values to plot on the chart.
   - If a column within the report contains a selected **Aggregate** value, the aggregation displays automatically when the report column is selected to display in a chart.
   - *(Optional)* Enter the **Vertical Axis Label** or **Horizontal Axis Label** option to display labels for one or both axes.
   - *(Optional)* In the **Number Format** drop-down, select an option to indicate how values on the axes are displayed.
   - *(Optional)* Select the **Show Grid Lines** option to display grid lines for one or both axes.
   - *(Optional)* To display the grid points, select the **Display Point Marker** check box.
7. Enter the following information to alter the chart display:

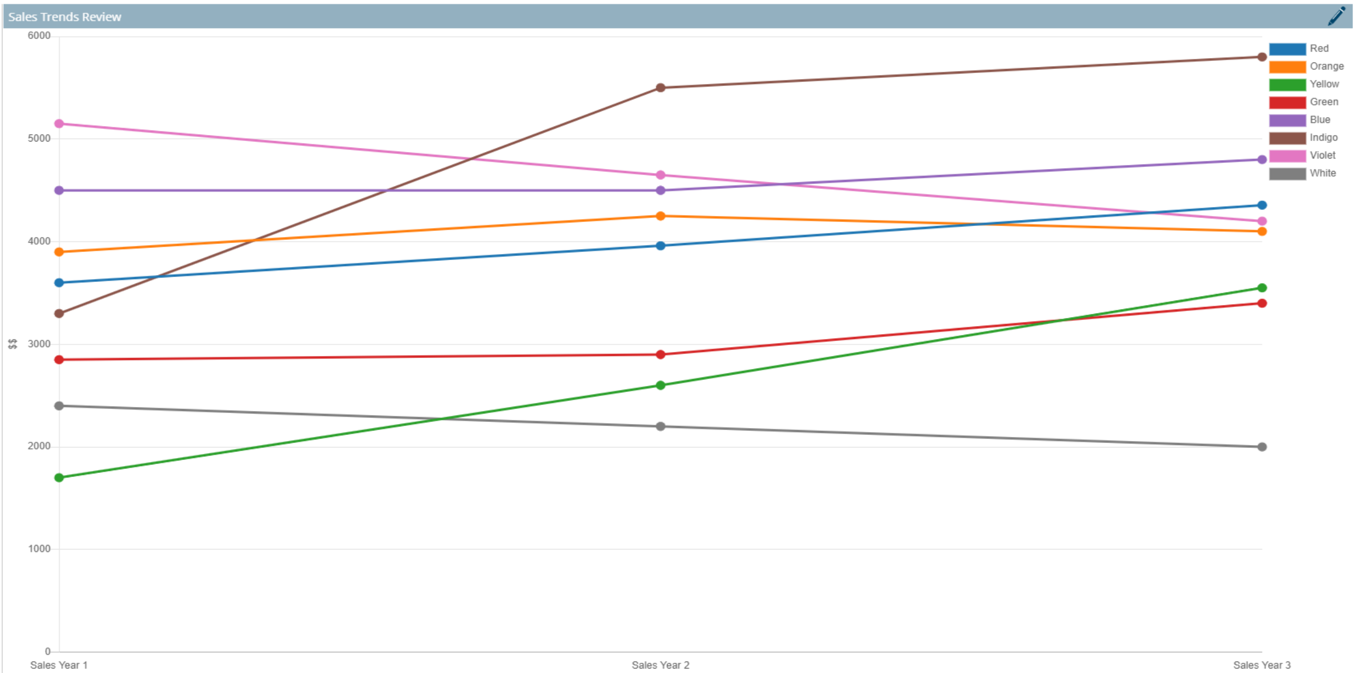
Field	Description
Style	Select whether to display lines only, or lines with fill below. If the contents of your report produces enough lines that the labels along the horizontal axis overlap, select the **Rotate Horizontal Axis Text** option to display the labels at an angle instead of horizontally to prevent overlapping.
Legend	Select where in the chart to display the key that identifies what the colors in the chart represent. After the chart renders, toggle a key label in the legend to hide and show data without changing the underlying chart and report configuration.
Color Theme	Select the color palette to assign to the bars. If plotting 10 or more data points, consider a color theme to accommodate each value measurement. Themes 2-5 allow for up to 20 plotted values.

8. *(Optional)* If you edited an existing chart, click in the upper right corner to view the new chart.
9. Click **Save** to save your changes and create the chart.

Example - Creating Line Chart by Columns Charts in Accolade

For example, a user wants to review and compare the past 3 years of sales numbers for several projects. The user has created a Sales Performance report for their chart report source, and selected the **Project Name** and **Sales Year 1 - Year 3** metrics to be included in the report.

To create a line chart by columns chart to display this information, the user has selected **Project Name** as the **Line Represents** value, and the **Sales Year 1 - Year 3** metrics as the **Columns** values, to create lines that represent the comparative sales trends for each year by project. Toggle a key label in the legend to hide and show data in the rendered chart.



Notes:

- To delete a saved chart, display the chart from the **Charts & Reports** page, click to display the chart settings, and click **Delete** at the bottom of the page. Only the chart owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the chart.
- If the **Replace Empty Value** system parameter is set to **0**, charts may render inconsistently due to empty or missing data returned by the report.
- Reporting Rights are not required to view the chart in a page layout; however a user must be an owner or have at least one matching user role for the chart to display in the layout.
- Use the **Currency Symbol** system parameter to specify the currency symbol that displays in the **Number Format** field when creating charts and reports.

Creating Line Chart Trends Charts Based on Report Data

Line Chart Trends charts are created by connecting a series of data points together with a solid line, and layering multiple lines within one chart to display or analyze trends or patterns in several related sets of data. In line chart trends, the user can cycle through different views, that is, different categories of data to get a more comprehensive view of a portfolio's performance using the cycle icon .

Important! Select appropriate data types to render a meaningful chart. Numeric data types will chart lines successfully. The system will not prevent you from selecting different data types and will plot selected data as best as possible without error.

To create a line chart trends chart based on report data:

1. From the **Workspace** menu, select **Charts & Reports**.

   To narrow the list, search by the chart name or category.

   Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

2. Do one of the following:
   - **To add a new chart** - Click **Add New**, select **Chart** from the drop-down list, and click the Line Chart Trends icon.
   - **To edit the details of an existing report** - Click the name of the chart on the **Charts & Reports** page and click to edit the report details. Only users assigned as chart owners and Process Designers with All Reporting Rights can edit chart details.

3. Enter the following information to identify the chart:

   Required fields display with red text and an asterisk * if the field is empty.

Field	Description
Name	Enter a name, up to 64 characters long, which identifies the chart. To display this name as the chart's title, select the **Display as title** option.
System Name	Enter a unique, shorter name that identifies the chart in queries, reporting views, field codes, and other places in Accolade. The name must be unique among charts and can contain only letters (English alphabet), numbers, and the underscore.
Category	Enter or select the group to which this chart belongs. Use categories to organize like charts together. For example, you may choose to group all the charts used in global layouts into the same category, in order to separate them from charts that are used in process model layouts or other reporting. • Leave this field blank to add to the **Default** category. • To define a new category, select **New Category** and enter the category name. • To delete a category, remove every item from the category. Empty categories are deleted automatically.
Description	Enter a description of the purpose or nature of the chart. This description helps other users identify the chart on the **Charts & Reports** page.

Field	Description
Owners	Click and select the additional users who can edit the chart details. To filter the list of users, enter one or more search criteria to filter by name, login name, email address, function, or extended field. • Clicking **Select current user** will assign the role to the current user (if they have the appropriate rights). • Selecting a **Function** in the drop-down will display available users that are assigned to the function. The current selection defaults to the function to which you are assigning a user, however depending on the project configuration, you can assign any user. • Clicking the **Show advanced filters** check box displays or hides the additional filter options. • Clicking **Clear** removes the current user assignment and displays **[None]** to indicate that no user is assigned. An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the chart. An assigned owner who has Refresh Workbook Data rights will only be able to view the chart. To make the chart available for all users or for configuration setup, you must have a Process Designer with All Reporting Rights as an assigned owner.

4. *(All optional, available in configuration only)* Enter the following information to make the chart publicly available.

Field	Description
Available to Charts & Reports	Select this check box to make the chart publicly available for users to access and view the chart. Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart in the **Shared Charts & Reports** section on the **Charts & Reports** page.
Available to Configuration	Select this check box to make the chart available for use in configuration.
Specific Roles	Select the system user roles that have access to view the chart.

Field	Description
	Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart on the **Charts & Reports** page.
Configuration Access Groups	When either **Available to** check box is checked, access groups must be defined for the chart. The access groups displayed are based on the current user's access group permissions and the access groups the chart belongs to. Additionally, Process Designers with matching permissions will be able to edit and view the chart.
Process Model Usage	*(Available for existing charts)* Click on the **Process Model Usage** button to see a list of process models that the online chart is associated with. The list displayed includes all process models the chart is included in, as well as links to the process model's component tree pages you have Edit access to.

Note: Clicking either **Available to** check box will place the chart in the **Shared Charts & Reports** section of the **Charts & Reports** page. If neither check box is selected, the chart will only be available to the assigned owners in their **My Charts & Reports** section.

5. In the **Report Source** field, select the report that contains the data to include in the chart. Only online reports created in Accolade are available for selection.
6. In the **Horizontal Axis** section, make the following selections:
   - *(Optional)* Enter a description in the **Label** field to display a label for the horizontal axis.
   - *(Optional)* Select the **Rotate Horizontal Axis Text** option to display the labels at an angle instead of horizontally to prevent overlapping.
   - *(Optional)* Select the **Show Grid Lines** option to display grid lines for one or both axes.
   - *(Optional)* Select the **Start at Zero** option to display the data range along the horizontal axis in relation to 0.

     When the **Start at Zero** check box is not selected, the data range for the horizontal axis will be determined by the lowest and highest available data values.

     For example, you have data points that are all between the values of 6 and 10 that are being graphed along the horizontal axis. Selecting the **Start at Zero** option will display a graph that displays the value range of 0 to 10 along the horizontal axis to show the relation of the data to the origin. If **Start at Zero** is not selected, the graph will display the value range of 6 to 10 along the horizontal axis.
   - *(Optional)* In the **Number Format** drop-down, select an option to indicate how values on the axis are displayed.

- In the **Column** drop-down list, select the column from the report that represents the data and measurement values to plot on the horizontal axis of the chart.
  - If a column within the report contains a selected **Aggregate** value, the aggregation displays automatically when the report column is selected to display in a chart.

7. In the **Vertical Axis** section, make the following selections:
   - *(Optional)* Enter a description in the **Label** field to display a label for the vertical axis.
   - *(Optional)* Select the **Show Grid Lines** option to display grid lines for one or both axes.
   - *(Optional)* In the **Number Format** drop-down, select an option to indicate how values on the axis are displayed.
   - Select the **Lines** columns from the report that represent the data and measurement values to plot on the vertical axis of the chart.
     - If a column within the report contains a selected **Aggregate** value, the aggregation displays automatically when the report column is selected to display in a chart.
8. *(Optional)* In the **Group By** field, select columns from the report to apply line groupings to the data presented in the graph.

   Adding additional **Group By** selections introduces more lines to your display which may impact chart use.
9. *(Optional)* Select the **Display Point Marker** check box to display the grid points.
10. In the **Cycles** field, select one or many cycles. Each cycle displays a different grouping of data that the lines represent. The Horizontal Axis selection is automatically selected and cannot be unselected.
11. Enter the following information to alter the chart display:

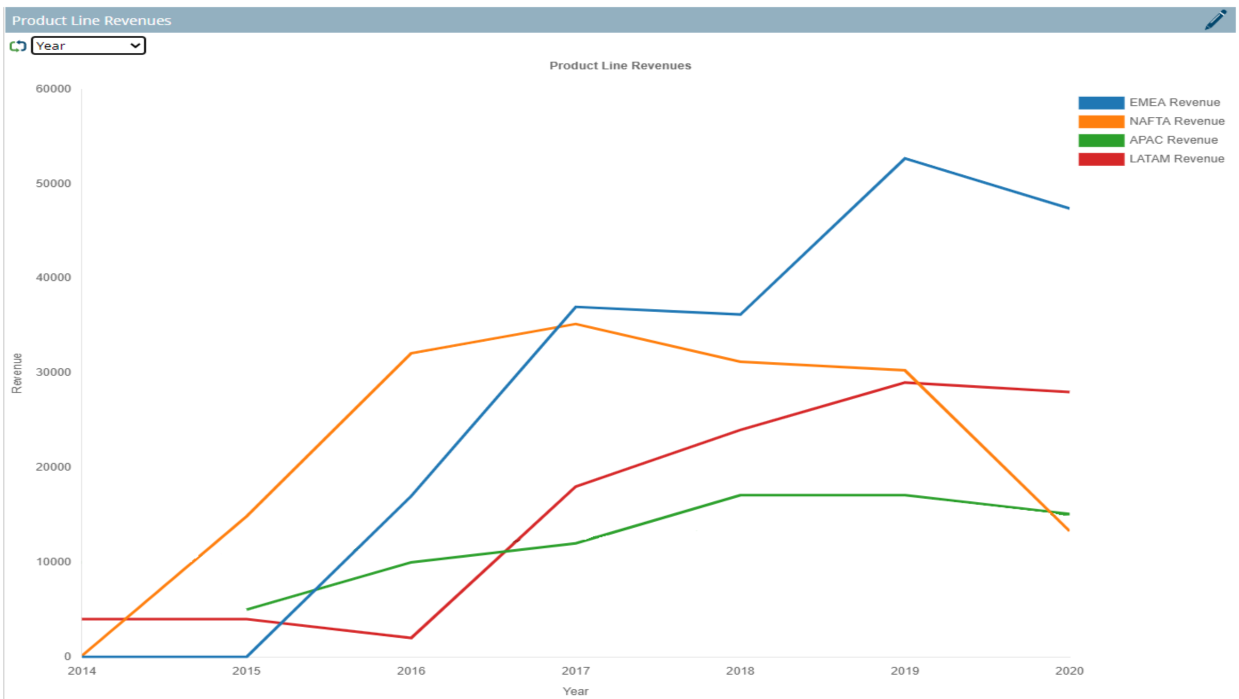
Field	Description
Style	Select whether to display lines only, or lines with fill below.
Legend	Select where in the chart to display the key that identifies what the colors in the chart represent. After the chart renders, toggle a key label in the legend to hide and show data without changing the underlying chart and report configuration.
Color Theme	Select the color palette to assign to the bars. If plotting 10 or more data points, consider a color theme to accommodate each value measurement. Themes 2-5 allow for up to 20 plotted values.

12. *(Optional)* If you edited an existing chart, click in the upper right corner to view the new chart.
13. Click **Save** to save your changes and create the chart.

Example - Creating Line Chart Trends Charts in Accolade

For example, a user wants to review and compare the revenue by region for a portfolio of products over the last several years. The user has created a Product Line Revenues Report for their report source, and selected the **Product Lines**, **Region**, **Year**, and **Revenue** metrics to be included in the report.

To create a line trends chart to display this information and cycle through the metrics for different chart views, the user has selected the **Year** for the **Horizontal Axis Label**, the **Product Lines** as the **Column** value, the **Revenue** for the **Vertical Axis Label**, the **Revenue** for the **Lines**, the **Region** for the **Group By** value, and **Revenue**, **Region**, and **Year** as the **Cycles** values. The Product Lines in the report represent the business units of Desktop, Tablets, Peripherals, Servers, and Mobile. The line segments represent the various products by category across region and revenue over several years. Select the cycle icon to view the different charts. Toggle a key label in the legend to hide and show data in the rendered chart.



Notes:

- To delete a saved chart, display the chart from the **Charts & Reports** page, click to display the chart settings, and click **Delete** at the bottom of the page. Only the chart owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the chart.
- If the **Replace Empty Value** system parameter is set to **0**, charts may render inconsistently due to empty or missing data returned by the report.
- Reporting Rights are not required to view the chart in a page layout; however a user must

be an owner or have at least one matching user role for the chart to display in the layout.

- Use the **Currency Symbol** system parameter to specify the currency symbol that displays in the **Number Format** field when creating charts and reports.

Creating Pie Charts Based on Report Data

Pie charts present categories of data as slices of a pie, where each category is represented as a percentage of the whole value of the chart. In pie charts, the user can cycle through different views, that is, different categories of data to get a more comprehensive view of a portfolio's performance using the cycle icon .

Important! Select numeric data types for the **Slice Represents** values to render a meaningful chart. The system will not prevent you from selecting different data types and will plot selected data as best as possible without error.

To create a pie chart based on report data:

1. From the **Workspace** menu, select **Charts & Reports**.

   To narrow the list, search by the chart name or category.

   Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

2. Do one of the following:
   - **To add a new chart** - Click **Add New**, select **Chart** from the drop-down list, and click the Pie Chart icon.
   - **To edit the details of an existing report** - Click the name of the chart on the **Charts & Reports** page and click to edit the report details. Only users assigned as chart owners and Process Designers with All Reporting Rights can edit chart details.

3. Enter the following information to identify the chart:

   Required fields display with **red** text and an asterisk * if the field is empty.

Field	Description
Name	Enter a name, up to 64 characters long, which identifies the chart. To display this name as the chart's title, select the **Display as title** option.
System Name	Enter a unique, shorter name that identifies the chart in queries, reporting views, field codes, and other places in Accolade.

Field	Description
	The name must be unique among charts and can contain only letters (English alphabet), numbers, and the underscore.
Category	Enter or select the group to which this chart belongs. Use categories to organize like charts together. For example, you may choose to group all the charts used in global layouts into the same category, in order to separate them from charts that are used in process model layouts or other reporting. • Leave this field blank to add to the **Default** category. • To define a new category, select **New Category** and enter the category name. • To delete a category, remove every item from the category. Empty categories are deleted automatically.
Description	Enter a description of the purpose or nature of the chart. This description helps other users identify the chart on the **Charts & Reports** page.
Owners	Click and select the additional users who can edit the chart details. To filter the list of users, enter one or more search criteria to filter by name, login name, email address, function, or extended field. • Clicking **Select current user** will assign the role to the current user (if they have the appropriate rights). • Selecting a **Function** in the drop-down will display available users that are assigned to the function. The current selection defaults to the function to which you are assigning a user, however depending on the project configuration, you can assign any user. • Clicking the **Show advanced filters** check box displays or hides the additional filter options. • Clicking **Clear** removes the current user assignment and displays **[None]** to indicate that no user is assigned. An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the chart. An assigned owner who has Refresh Workbook Data rights will only be able to view the chart. To make the chart available for all users or for configuration setup, you must have a Process Designer with All Reporting Rights as an assigned owner.

4. *(All optional, available in configuration only)* Enter the following information to make the chart publicly available.

Field	Description
Available to Charts & Reports	Select this check box to make the chart publicly available for users to access and view the chart. Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart in the **Shared Charts & Reports** section on the **Charts & Reports** page.
Available to Configuration	Select this check box to make the chart available for use in configuration.
Specific Roles	Select the system user roles that have access to view the chart. Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart on the **Charts & Reports** page.
Configuration Access Groups	When either **Available to** check box is checked, access groups must be defined for the chart. The access groups displayed are based on the current user's access group permissions and the access groups the chart belongs to. Additionally, Process Designers with matching permissions will be able to edit and view the chart.
Process Model Usage	*(Available for existing charts)* Click on the **Process Model Usage** button to see a list of process models that the online chart is associated with. The list displayed includes all process models the chart is included in, as well as links to the process model's component tree pages you have Edit access to.

Note: Clicking either **Available to** check box will place the chart in the **Shared Charts & Reports** section of the **Charts & Reports** page. If neither check box is selected, the chart will only be available to the assigned owners in their **My Charts & Reports** section.

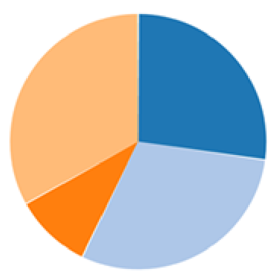
5. In the **Report Source** field, select the report that contains the data to include in the chart. Only online reports created in Accolade are available for selection.

6. Select the following information to define the slices within the pie chart and how they display:

Field	Description
Slice Represents	Select the data column that contains the row items that the slices in the pie represent.

Field	Description
Slice Size	Select the numeric data column that determines the size of the slices in the pie.
Cycles	Select one or many cycles. Each cycle is a data column that contains the row items that the slices in the pie represent. The Slice Represents selection is automatically selected and cannot be unselected.
Slice Name	Select to include the name of the pie slice as part of the slice's label.
Slice Value or **Slice Percentage**	Select whether to label the pie slices by value or percentage of the pie included in the slice. You can select one or both, or select neither to display the slices with no values.

7. Select the following attributes to define the pie chart's style:

Field	Description
Doughnut	Displays the pie with an empty space in the middle. 
Exploded	Displays the pie with space between each piece. 
Number Format	Select a number formatting option to indicate how the values in the chart are displayed.
Color Theme	Select the color palette to assign to the pie sections of the chart. If plotting 10 or more data points, consider a color theme to accommodate each value measurement. Themes 2-5 allow for up to 20-25 plotted values.
Legend	Select where in the chart to display the key that identifies what the colors in the chart represent.

Field	Description
	After the chart renders, toggle a key label in the legend to hide and show data without changing the underlying chart and report configuration.

8. *(Optional)* If you edited an existing chart, click  in the upper right corner to view the new chart.
9. Click **Save** to save your changes and create the chart.

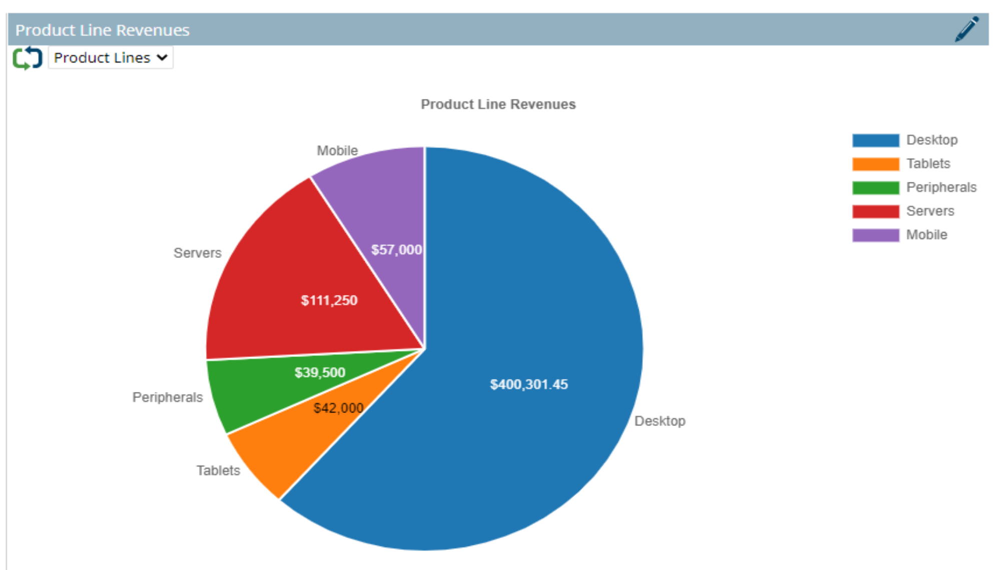
Example - Creating Pie Charts in Accolade

For example, a user wants to review and compare the revenue by region for a portfolio of products over the last several years. The user has created a Product Line Revenues Report for their report source, and selected the **Product Lines**, **Region**, **Year**, and **Revenue** metrics to be included in the report.

For example, a user wants to review and compare last year's sales revenue numbers for several projects. The user has created a Sales Performance report for their chart report source, and selected the **Project Name** and **Sales Year 1** metrics to be included in the report.

To create a pie bar chart to display this information and cycle through the metrics for different chart views, the user has selected the **Product Lines** for the **Slice Represents**, the **Revenue** for the **Slice Size**, and the **Region**, **Year**, and **Revenue** as the **Cycles** values. The Product Lines in the report represent the business units of Desktop, Tablets, Peripherals, Servers, and Mobile. The slices represent the various products by category across region and revenue over several years. Select the cycle icon  to view the different charts. Toggle a key label in the legend to hide and show data in the rendered chart.

To create a pie chart to display this information, the user has selected **Project Name** as the **Slice Represents** value, and **Sales Year 1** as the **Slice Size** value, to create slices that represent each project's sales revenue as a portion of the company's overall sales total.



Notes:

- Percentages in pie charts truncate after the first decimal place therefore the total may not always equal 100%. For example, 27.786% will display as 27.7%.
- Negative values are not included in the pie chart.
- To delete a saved chart, display the chart from the **Charts & Reports** page, click to display the chart settings, and click **Delete** at the bottom of the page. Only the chart owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the chart.
- If the **Replace Empty Value** system parameter is set to **0**, charts may render inconsistently due to empty or missing data returned by the report.
- Reporting Rights are not required to view the chart in a page layout; however a user must be an owner or have at least one matching user role for the chart to display in the layout.
- Before creating the chart, the user selects the sort order of the data in the associated report.

Creating Radar Charts Based on Report Data

Radar charts are multi-dimensional graphs that display data values based on a shared center axis, and can be useful for comparing properties of a single component, or for performance analysis and determining when one variable is performing differently than the rest.

Important! Select spokes with numeric data types to render a meaningful chart. The system will not prevent you from selecting different data types and will plot selected data as best as possible without error.

To create a radar chart based on report data:

1. From the **Workspace** menu, select **Charts & Reports**.

   To narrow the list, search by the chart name or category.

   Note: Process Designers can also create or edit charts, reports, and related configuration by navigating to the **System** menu and selecting **Content Sources > Charts & Reports Manager**.

2. Do one of the following:
   - **To add a new chart** - Click **Add New**, select **Chart** from the drop-down list, and click the Radar Chart icon.
   - **To edit the details of an existing report** - Click the name of the chart on the **Charts & Reports** page and click to edit the report details. Only users assigned as chart owners and Process Designers with All Reporting Rights can edit chart details.

3. Enter the following information to identify the chart:

   Required fields display with **red** text and an asterisk * if the field is empty.

Field	Description
Name	Enter a name, up to 64 characters long, which identifies the chart. To display this name as the chart's title, select the **Display as title** option.
System Name	Enter a unique, shorter name that identifies the chart in queries, reporting views, field codes, and other places in Accolade. The name must be unique among charts and can contain only letters (English alphabet), numbers, and the underscore.
Category	Enter or select the group to which this chart belongs. Use categories to organize like charts together. For example, you may choose to group all the charts used in global layouts into the same category, in order to separate them from charts that are used in process model layouts or other reporting. • Leave this field blank to add to the **Default** category. • To define a new category, select **New Category** and enter the category name. • To delete a category, remove every item from the category. Empty categories are deleted automatically.
Description	Enter a description of the purpose or nature of the chart. This description helps other users identify the chart on the **Charts & Reports** page.
Owners	Click and select the additional users who can edit the chart details. To filter the list of users, enter one or more search criteria to filter by name, login name, email address, function, or extended field. • Clicking **Select current user** will assign the role to the current user (if they have the appropriate rights). • Selecting a **Function** in the drop-down will display available users that are assigned to the function. The current selection defaults to the function to which you are assigning a user, however depending on the project configuration, you can assign any user. • Clicking the **Show advanced filters** check box displays or hides the additional filter options. • Clicking **Clear** removes the current user assignment and

Field	Description
	displays **[None]** to indicate that no user is assigned. An assigned owner with All Reporting Rights can view, update, delete, or add additional owners to the chart. An assigned owner who has Refresh Workbook Data rights will only be able to view the chart. To make the chart available for all users or for configuration setup, you must have a Process Designer with All Reporting Rights as an assigned owner.

4. *(All optional, available in configuration only)* Enter the following information to make the chart publicly available.

Field	Description
Available to Charts & Reports	Select this check box to make the chart publicly available for users to access and view the chart. Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart in the **Shared Charts & Reports** section on the **Charts & Reports** page.
Available to Configuration	Select this check box to make the chart available for use in configuration.
Specific Roles	Select the system user roles that have access to view the chart. Users with one or more matching user roles and either Refresh Workbook Data or All Reporting Rights will be able to view the chart on the **Charts & Reports** page.
Configuration Access Groups	When either **Available to** check box is checked, access groups must be defined for the chart. The access groups displayed are based on the current user's access group permissions and the access groups the chart belongs to. Additionally, Process Designers with matching permissions will be able to edit and view the chart.
Process Model Usage	*(Available for existing charts)* Click on the **Process Model Usage** button to see a list of process models that the online chart is associated with. The list displayed includes all process models the chart is included in, as well as links to the process model's component tree pages you have Edit access to.

Note: Clicking either **Available to** check box will place the chart in the **Shared Charts & Reports** section of the **Charts & Reports** page. If neither check box is selected, the chart will only be available to the assigned owners in their **My Charts & Reports** section.

5. In the **Report Source** field, select the report that contains the data to include in the chart. Only online reports created in Accolade are available for selection.
6. In the **Polygons** field, select the column from the report that represents the data and measurement values to plot on the chart.
   - If a column within the report contains a selected **Aggregate** value, the aggregation displays automatically when the report column is selected to display in a chart.
7. In the **Spokes** field, select the columns from the report that represent the data and measurement values to plot as groupings or areas of the values.
8. Enter the following information to alter the chart display:

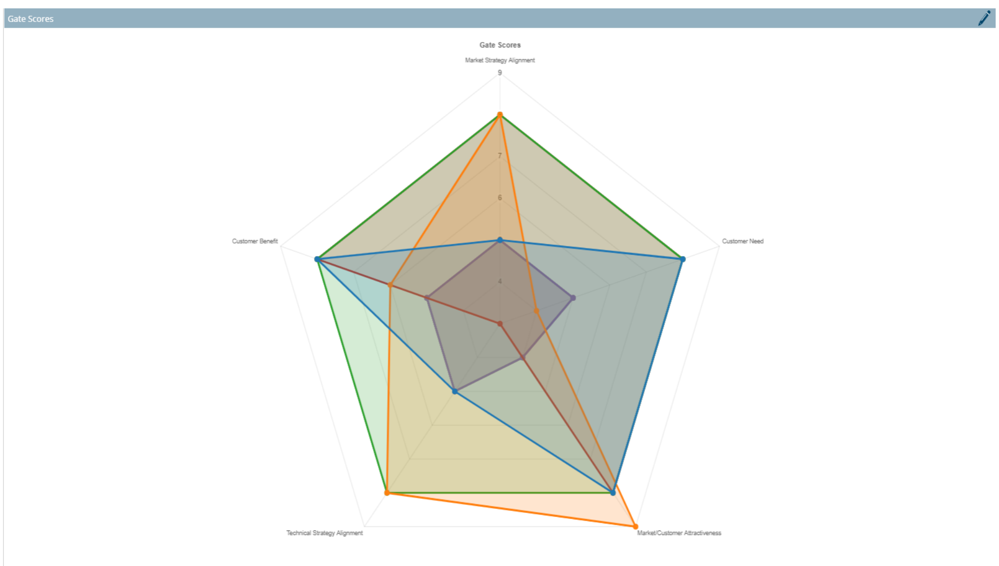
Field	Description
Scale Control	Select the scaling and size of the displayed chart. • Select **Automatic** to set the chart range minimum and maximum values displayed in the chart based on the data ranges in the report. • Select **Custom** to manually set the chart **Range Minimum** and **Range Maximum** values displayed in the chart.
Number Format	Select a number formatting option to indicate how the values in the chart are displayed.
Style	Select how the polygon shapes charting the data display. If you select **Lines and Fill** or **Fill Only**, select how solid to display the shapes in the chart in the **Polygon Opacity** field. Using a smaller value displays the polygons less opaque, and can make each easier to see if polygons overlap in the chart.
Legend	Select where in the chart to display the key that identifies what the colors in the chart represent. After the chart renders, toggle a key label in the legend to hide and show data without changing the underlying chart and report configuration.
Color Theme	Select the color palette to assign to the regions.

9. *(Optional)* If you edited an existing chart, click in the upper right corner to view the new chart.
10. Click **Save** to save your changes and create the chart.

Example - Creating Radar Charts in Accolade

For example, a user wants to review their portfolio of projects, and identify which ones continue to best fit their company's overall strategy based on a set of current gate scores. The user has created a Business Opportunity Report for their chart report source, and selected the **Project Name**, **Market Strategy Alignment**, **Customer Need**, **Market/Customer Attractiveness**, **Technical Strategy Alignment**, and **Customer Benefit** metrics to be included in the report.

To create a radar chart to display this information, the user has selected **Project Name** as the **Polygons** value, and the **Market Strategy Alignment**, **Customer Need**, **Market/Customer Attractiveness**, **Technical Strategy Alignment**, and **Customer Benefit** metrics as the **Spokes** values to create shapes that compare the gate scores for various projects. Toggle a key label in the legend to hide and show data in the rendered chart.



Notes:

- To delete a saved chart, display the chart from the **Charts & Reports** page, click to display the chart settings, and click **Delete** at the bottom of the page. Only the chart owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the chart.
- If the **Replace Empty Value** system parameter is set to **0**, charts may render inconsistently due to empty or missing data returned by the report.
- Reporting Rights are not required to view the chart in a page layout; however a user must be an owner or have at least one matching user role for the chart to display in the layout.

Adding Target Lines to Bar Charts

In order to characterize Accolade data more completely, it can be helpful to include a threshold line or target value indicators to your chart. Bar charts include an option to display and hide target data for a project or portfolio. Users can add target lines to grouped, stacked, and vertical bar charts to visually represent a benchmark line and add context for the viewer. Adding interpretation to the data visualization helps the viewer understand the information being presented in the chart.

To add target lines to a bar, grouped bar, or stacked bar chart:

1. From the **Project > Charts & Reports** page, click the name of the chart and click to edit the chart details.
2. In the **Target Line Report Source** field, select the online report to be referenced.

   The **Target Line Report Source** does not have to be the same report as used for the chart's **Report Source**. If the **Report Source** and the **Target Line Report Source** are different reports, the values in the **Target Line Report Key** column should match the values in the **Grouping** column.

3. In the **Target Line Report Key** and **Target Line Report Value** fields, select the report columns from the selected source above that will be referenced to create target lines.

   The **Target Line Report Value** controls what values the targets lines display in the chart.

   - If the **Target Line Report Source** column selected contains rows with unique values, the **Target Line Report Value** will display the relative metric value as the target line.
   - If the **Target Line Report Source** column selected contains rows with duplicate values, the target line will display as the aggregated totals of the **Target Line Report Value** metric values from each row of data.
   - When **Cycle Segments** is set to **Horizontal Axis**, the target lines will only be applied to the original value, as defined for the horizontal axis.

Examples 1 & 2 discuss how to create a chart with target lines using one or multiple chart sources, and the Target Line Report Source column contains unique values per project. Example 3 discusses how to create a chart with target lines using aggregated metric totals.

Example 1 - Bar Charts Using One Report Source

For example, a user has several different projects that are all reporting yearly sales numbers, and wants to review how each project performed against their individual sales target. For the report, the user has created a Project Sales Report that includes the **Project Name**, and selected the **Total Sales** and **Sales Forecast** metrics to be included in the report.

Using the Project Sales Report as the source for both the chart and the target lines, make the following selections for a bar chart:

- For the chart setup, select **Project Name** as the **Grouping** value and **Total Sales** as the **Bar** value, to create bars that represent the total sales for each project.

- For the targets setup, select **Project Name** as the **Target Line Report Key** value and **Sales Forecast** as the **Target Line Report Value**, to create target lines that represent the sales targets for each project.

The user could include additional sales data metrics in the chart and report in order to create grouped bar and stacked bar charts to represent additional comparison views.

Example 2 - Bar Charts Using Different Report Sources

Using the same scenario from Example 1, the user is again reviewing how each project performed against their individual sales target. In this example, the user will still create a report to gather the yearly sales numbers from the projects, however the sales targets are defined in a reference table stored in Accolade, so they will need to create a second report to use this table information to create target lines.

For the chart report, the user has created a Project Sales Report that includes the **Project Name**, and selected the **Total Sales** metric to be included in the report. For the target line report, the user has created a Sales Reference Table report that uses the reference table data for its information source.

Using the Project Sales Report as the source for the chart, and the Sales Reference Table as the source for the target lines, make the following selections for a bar chart:

- For the chart setup, select **Project Sales Report** as the **Report Source**, **Project Name** as the **Grouping** value and **Total Sales** as the **Bar** value, to create bars that represent the total sales for each project.
- For the targets setup, select **Sales Reference Table** as the **Target Line Report Source**, **Project** as the **Target Line Report Key** value and **Sales Goal** as the **Target Line Report Value**, to create target lines that represent the sales targets for each project.

As with the single source grouped bar and stacked bar examples, the user can include additional metrics in their chart and reports in order to visually represent the comparisons.

Example 3 - Bar Charts Using Aggregated Metric Totals

In this scenario, the user has several regions that are being reviewed against their regional yearly sales targets. There are multiple projects within each region, so the user needs to aggregate both the sales numbers and the total sales forecast for each region. For the report, the user has created a Regional Sales Report that includes data for all of the projects in the region, and selected the **Sales Region**, **Total Sales**, and **Projected Sales** metrics to be included in the report.

Using the Regional Sales Report as the source for both the chart and the target lines, make the following selections for a bar chart:

- For the chart setup, select **Regional Sales Report** as the **Report Source**, **Sales Region** as the **Grouping** value and **Total Sales** as the **Bar** value, to create bars that represent the total sales numbers for each region. Since there are multiple projects in each region, the bar will display the aggregated **Total Sales** value.

- For the targets setup, select **Regional Sales Report** as the **Target Line Report Source**, **Sales Region** as the **Target Line Report Key** value and **Projected Sales** as the **Target Line Report Value**, to create target lines that represent the total sales targets for each region, Again since there are multiple projects in each region, the target line will display the aggregated **Projected Sales** value.

As with the previous examples, the user can include additional metrics in their chart and reports in order to visually represent the comparisons.

Important! When adding targets to bar charts, keep the following guidelines in mind:

- Select appropriate data types and values to render a meaningful chart and targets. The system will not prevent you from selecting different data types and will plot selected data as best as possible without error.
- Target lines can be turned on and off by clicking on the Targets legend within the chart.
- Target lines are only valid for use in bar charts that are displayed vertically.
- In stacked bar charts, target lines will not display if **Stacked to 100%** is selected.

Notes:

- To delete a saved chart, display the chart from the **Charts & Reports** page, click to display the chart settings, and click **Delete** at the bottom of the page. Only the chart owner, users assigned as owners with All Reporting Rights, and Process Designers with All Reporting Rights can delete the chart.
- If the **Replace Empty Value** system parameter is set to **0**, charts may render inconsistently due to empty or missing data returned by the report.
- Reporting Rights are not required to view the chart in a page layout; however a user must be an owner or have at least one matching user role for the chart to display in the layout.

Accolade Excel Reports Overview

Accolade Excel reports can be added to the **Charts & Reports** page within Accolade and/or to a process model for availability within a project. These reports are built and viewable in Excel, provide flexibility in formatting, and can be created using the Accolade Office Extensions add-in application. The application provides an interface to create a data report based on Accolade data.

Creating Accolade Excel Reports using Accolade Office Extensions

With the Accolade Office Extensions add-in, anyone in your organization with All Reporting Rights can create a report in Excel using the add-in.

Reports created via the Accolade Office Extensions add-in provides the following advantages:

- No SQL knowledge is required. You can select Accolade data directly from the report interface without writing SQL queries.
- Reports can be refreshed when downloaded from Accolade to contain up-to-date information and formatted for distribution or review, query-based tables cannot.

  Use the **Report Privacy Warning Text** system parameter to add a notification within the report to indicate the content is private or confidential, and should not be forwarded to others.

The information below assumes you are using the Accolade Office Extensions add-in to create reports and assumes you are familiar with basic Excel functionality. For more information about manipulating the data in a report, see the online Help available from within the add-in.

To create an Accolade Excel report:

1. Open Excel and navigate to the Accolade menu in the Excel ribbon.

   This allows Excel to pull data from Accolade into the report and allows reports to be created or refreshed to display current Accolade information.

   If necessary, connect to the appropriate server by clicking **Server** and entering the server URL.

2. Click **Data Reports** and do one of the following:

   - **To add a new report** - Click **Add New**.
   - **To create a report based on an existing report** - Click to copy the report.
   - **To edit an existing report** - Click the name of the report to open it for editing.

3. Select a subject from the drop-down list, such as **Projects** or **Users**, to display the column sets available within that subject.
4. Double-click or drag and drop the column names from the left side of the dialog to any area in the **Columns** tab to include the column in the report.
   - To search for a column, enter search criteria in the **Find** field after selecting the subject.
   - Use the and options to expand or collapse the subject data sets in order to select specific column options.
   - To include an entire column set, drag and drop the column set to the **Columns** tab.
   - To change the column order of selected columns, drag and drop a column into a new location within the list.
   - To remove a column, click in the corresponding row.
5. *(Optional)* Refine the content of the report as necessary.
   - **Rename columns** - Click in one or more selected columns and enter a new column name that is more appropriate for the report you are creating.
   - **Set column sorting** - Click next to one or more selected columns to indicate whether the column is sorted in ascending or descending order. If you select more than one column to sort by, indicate the order in which the columns sort; 1 being the primary sort, 2 the secondary sort, and so on.
   - **Determine column properties** - For number and date columns, click or in the **Properties** area to group data together by aggregation or select date formats. Select the aggregate method or date format and click away to apply the changes. All selected aggregate methods are added to the report columns list with the aggregate method appended to the column name.

     For example, to summarize the total costs for all projects within a brand, select **Sum** as the aggregate value in a column that represents the total costs for a project.
   - **Add Count Column** - If you select to summarize values within the report, click **Add Count Column** to add a column that shows how many rows of source data are combined in the summary row.

     You can order and rename the added column as you can other columns; however, you can add only one **Count** column to the report.
   - **Add Calculated Column** - Click **Add Calculated Column** to add a column to the report that displays a calculation based on other column data.
6. *(Optional)* On the **Filters** tab, double-click or drag and drop the column name from the left side of the dialog to any area in the **Filters** tab to use it as filter criteria that data must match to be included in the report.
7. *(Optional)* On the **Report Details** tab, add the following information:

Field	Description
Report Name	Enter a name which identifies the report.
Report Location	Select one of the following options for the location to place the report: • **Existing worksheet** - Select this check box to add the report to an existing worksheet that does not already contain a report, and select the appropriate existing worksheet name from the drop-down list. • **New worksheet** - Select this check box to create and add the report to a new worksheet, and enter the name for the new worksheet.
Override Project Filtering	Select this check box to include the entire report set from within a project. The report will not filter to project-specific data when viewed from within a project, and will display all projects in a portfolio regardless of security.
Transpose	Select this check box to transpose the column and row data when the report is rendered.

8. On the **Advanced Matrix Settings** tab, if more than one matrix was selected in the report columns, click **Add** to add the matrix join definitions.
9. Click **Done** to apply your changes and generate the report.
10. Save the report to an accessible location.

Notes:

- Click **Refresh Columns** in the lower left of the dialog to refresh the columns. Any columns modified in the Accolade application while the user is creating or editing the report will be updated. Deleted columns will be removed from list of available columns and will display red in the **Columns** tab and **Filters** tab. Delete the selections in red to correct the report.
- To delete a saved report created in Excel, click **Data Reports** in the Accolade menu on the Excel ribbon and click next to the corresponding report. Deleting a report created using the Accolade Office Extensions add-in deletes report data being pulled from Accolade into the workbook. Deleting a report directly from the worksheet does not delete the data associated with the report.

Adding Calculated Columns to Accolade Excel Reports

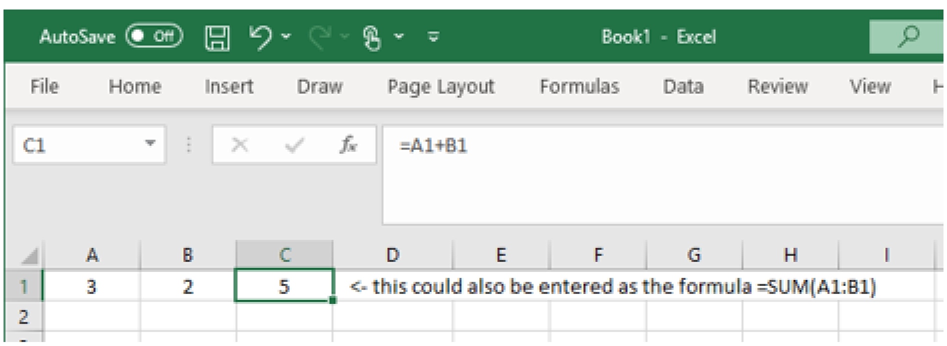
Reporting details can be contained in multiple sources within Accolade. To combined related data values to be used for reporting or the creation of charts or presentations, users can create reports that include calculated columns that calculate and/or display combined data, allowing users to manipulate and analyze Accolade data values.

For example, a user may have several different project metrics that represent categories of project costs such as Administrative, Operating, Marketing, etc. In order to calculate and display the sum of these project costs within an Accolade report or chart, the user can include a calculated column in their report setup.

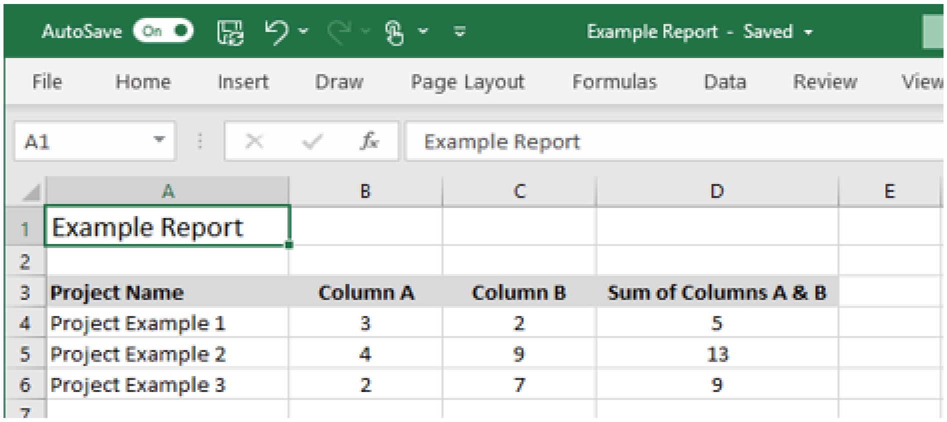
EXAMPLE Example

Writing a calculated column formula in Accolade is slightly different than writing an equation in math class, or using formulas in Excel. The most notable difference is the use of the equal sign (=). For example, if you want to add the numbers 3 and 2:

- In math class, the equation would read **3+2=**, with a calculated value of **5**.
- In Excel, formulas start with the equal sign, so it would look like **=3+2**. When entered, the value in the selected cell would return as **5**. If you wanted to add two cell values, it would look something like **=A1+B1** or **=SUM(A1:B1)**. Assuming the values in A1 and B1 were 3 and 2 respectively, it would return the value **5**.



- In an Accolade Excel report created using the Accolade Office Extensions add-in, the equal sign is assumed, so it does not need to be included in the formula field. If you wanted to add the values of Column A and Column B, it would look like **[Column A] + [Column B]** or **Sum ([Column A], [Column B])**. Assuming the first row values of Column A and Column B were 3 and 2 respectively, it would return the value **5**.



	A	B	C	D	E
1	Example Report				
2					
3	**Project Name**	**Column A**	**Column B**	**Sum of Columns A & B**	
4	Project Example 1	3	2	5	
5	Project Example 2	4	9	13	
6	Project Example 3	2	7	9	
7					

To add a calculated column to an Accolade Excel report:

> **Note:** See below for a list of calculations that are currently supported for reporting.

1. Create a new report or open an existing report for editing.
2. On the **Columns** tab, ensure the columns to be used in the calculation are included in the report.

   Report calculations are executed from left to right. In order for selected columns to be used in a calculated column, they must a) be selected as a column for the report, and b) be included before they are referenced by a calculated column (this means they must appear to the left of the calculated column when displayed, or above the calculated column when selecting columns in the report setup).

3. Click **Add Calculated Column**.

   The column is added with two fields - one for the display name for the column, and one for the formula to be calculated.

4. In the left field, enter the column name to be displayed when the report is generated.
5. In the f field, enter the formula to be calculated within the report.

   When entering your formula, the columns are referenced by enclosing the column display name inside of square brackets. In the example above, Column A is entered as **[Column A]**.

6. Click to select the appropriate datatype for the calculated column.
   - **Date** - Select this option when you want the column data to display as a Date datatype, for example when using the DateAdd function to project a future project date.
   - **Number** - Select this option when you want the column data to display as a Number datatype, for example when using the Sum function to combine the values of two or more columns of expense values.
   - **String** - Select this option when you want the column data to display as a String datatype, for example when using the Concatenate function to display user name and functions combined in one column.

7. *(Optional)* Drag and drop the calculated column to a new location within the list.

   Note that while the calculated column cannot be displayed in the report until after its reference columns are displayed, you can have calculated columns that are displayed between data columns as necessary. Using the example above, after the **Sum** column we could add **Column C** and **Column D** to the report and then add another calculated column, and so forth.

8. Finish setting up the report, as necessary.
9. Click **Done** to apply your changes and generate the report.
10. Save your changes to the report.

Available Formulas for Calculated Columns in Reporting

The following section details the operators and functions that are available for use when creating your calculated column formulas.

Important! Note that the examples use "Column A", "Column B", and "Column C" to generically refer to the display names of different columns that are included in the report data.

Operators

Operators are process or mathematical parts of expressions, such as addition and multiplication, and relationships such as greater than or less than. Use the operators below within your calculated column expressions.

Operator	Example
Additive and Subtractive Operators	
+ (plus, plus sign)	[Column A]+[Column B]
- (minus, dash)	[Column A]-[Column B]
Multiplicative Operators	
* (multiplied by, asterisk)	[Column A]*5
/ (divided by, slash)	[Column A]/[Column B]
% (mod, percent sign)	[Column A]%10
Primary Operators	
value (integers, text strings, dates, functions)	('this is a text string') While single quotes work for dates, we recommend wrapping dates in pound or hash signs instead to ensure consistency of data types.

Operator	Example
	For example, (#2021-10-19#).
( ) (parentheses)	1000-(6*[Column A])
Relational Operators	
= (equals)	[Column A]=250
<> (does not equal)	[Column A]<>[Column B]
> (greater than, angle bracket)	[Column A]>250
>= (greater than or equal to)	[Column A]>=250
< (less than, angle bracket)	[Column A]<500
<= (less than or equal to)	[Column A]<=100
Logical Operators	
or, || (double pipe)	[Column A]<[Column B]||[Column A]<500
and, &&	[Column A]<[Column B]&&[Column A]<1000

Functions

The functions included in the calculated column formula determine in part what is returned in the column. Use the functions described below within your calculated expressions to return data within a calculated column.

For more information on the description or formatting for the calculations below, see Calculated Metric Expressions Reference.

Function	Example Formula
Abs	Abs([Column A])
Acos	Acos([Column A])
Asin	Asin([Column A])
Atan	Atan([Column A])
Avg	Avg([Column A], [Column B], [Column C])
Ceiling	Ceiling([Column A])
Concatenate	Concatenate('text1',[Column A], 'text2', 'textN')
Contains	Contains([Column A], 'My Blue Heaven', 2, 7)
Cos	Cos([Column A])

Function	Example Formula
DateAdd	DateAdd('D', 5, [Column A])
DateDiff	DateDiff('D',[Column A], [Column B])
DatePart	DatePart('M', [Column A])
Exp	Exp([Column A])
Find	Find([Column A], 'My Blue Heaven', 2, 20)
First	First([Column A], [Column B], [Column C])
Floor	Floor([Column A])
IEEERemainder	IEEERemainder([Column A], [Column B])
If	If([Column A]>500, 'Go ahead', 'Stop')
In	In([Column A], 1, 2, 3)
IsNull	IsNull([Column A], [Column B])
Join	Join([Column A], [Column B], [Column C]), '|')
Length	Length([Column A])
Log	Log([Column A], 10)
Log10	Log10([Column A])
Lower	Lower([Column A])
LTrim	LTrim([Column A])
Max	Max([Column A], [Column B], [Column C])
Min	Min([Column A], [Column B], [Column C])
Now	Now()
Pow	Pow([Column A], 2)
Replace	Replace([Column A], 'Blue', 'red')
Round	Round([Column A], 2)
RTrim	RTrim([Column A])
Search	Search('blue', [Column A], 5, 30).
Sign	Sign([Column A])
Sin	Sin([Column A])
Sqrt	Sqrt([Column A])

Function	Example Formula
SubString	SubString([Column A], 4, 10)
Sum	Sum([Column A], [Column B], [Column C])
Tan	Tan([Column A])
Trim	Trim([Column A])
Truncate	Truncate([Column A])
Upper	Upper([Column A])

Notes:

- To delete a calculated column from an Accolade Excel report, click **Data Reports** in the Accolade menu on the Excel ribbon and click the name of the report to open it for editing. Expand the **Columns** tab, and click in the corresponding calculated column row to delete it. Click **Done** to apply your changes and generate the report and save your changes to the report.

Adding Dynamic Filters to Accolade Excel Reports

Capture and filter report data using relative metric and metadata field codes to create dynamic reports that display data according to defined filters within the report. Filtering reports based on relative metrics and metadata field codes allows you to narrow the returned data set while still generating a higher level view. Dynamic filters allow you to view a subset of data from within different projects.

Important! Ensure the **Override project filtering** check box is selected on the report settings. This enables the report to include data across a subset of projects.

To add dynamic filters to an Accolade Excel report:

1. Create a new report, or open an existing report for editing.
2. Click and expand the **Filters** tab.
3. To add filters, double-click or drag and drop the column names from the left side of the dialog to any area in the **Filters** tab.
   - To search for a column to add as a filter, enter search criteria in the **Find** field after selecting the subject.
   - To include an entire column set, drag and drop the column set to any area in the **Filters** tab.

   If multiple filters are added to the report, data must meet ALL filter criteria to be included in the report.

4. For each added filter, select the operator and filter criteria that report data must match to be included.

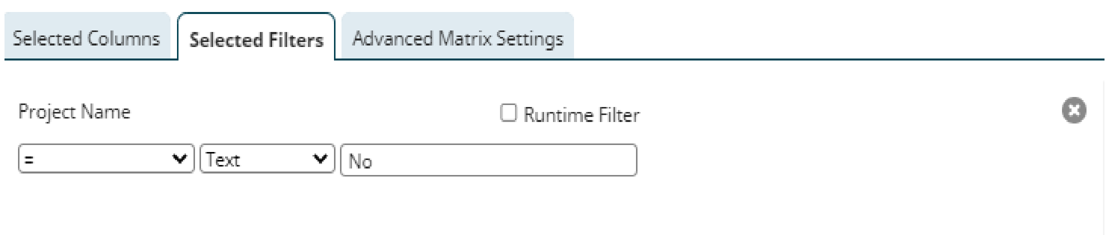
   The filter operators are dependent on the column selected to filter by, and generally include options such as =, is empty, is one of, does not contain, and more.

   The filter type must be selected from one of the following, and the following field identifies the criteria to be met:

   - **Metadata** - Enter the field code display name and select from the returned list. Ensure you enter a valid query field code.
   - **Metric** - Enter the metric display name and select from the returned list.
   - **Text** - Enter or select a static string or numeric value such as a date.
   - **Current User** - Filters the report to data only applicable to the user logged in and viewing the report. Current User is only available for numeric or ID data type columns.

   Type ahead to search for metrics and field codes when defining the filter criteria. Only metrics and field codes that match the data type of the filter display for selection. For example, if you select a date filter, you can only select date metrics or field codes to define the relative filter.

   For example, to create a report that returns a list of deactivated users, filter on the User Active column to return only users where the active flag is set to **No**.



5. *(Optional)* Select the **Prompt on Refresh** check box to prompt the user to review and/or update the filters when refreshing the data in the report.
6. Finish setting up the report, as necessary.
7. Click **Done** to apply your changes and generate the report.
8. Save your changes to the report.

Notes:

- To delete a filter from an Accolade Excel report, click **Data Reports** in the Accolade menu on the Excel ribbon and click the name of the report to open it for editing. Expand the **Filters** section, and click in the corresponding filter row to delete it. Click **Done** to apply your changes and generate the report, and save your changes to the report.
- Long string and multi-select list metrics are currently not supported for use as metric filters.

Adding Multiple Matrices to Accolade Excel Reports

Reporting details can be contained in multiple sources within Accolade. To consolidate data into a single source to be used for reporting or the creation of charts or presentations, users can create reports to combine the data. Information from more than one project matrix can be pulled into a report by including a common value that is included in the sources, for example, using a Department or Region metric or a common Row ID.

In addition to selecting the matrix and metric columns to be included in the report, users must create join statements that define how the matrix information is related.

To add multiple matrices to an Accolade Excel report:

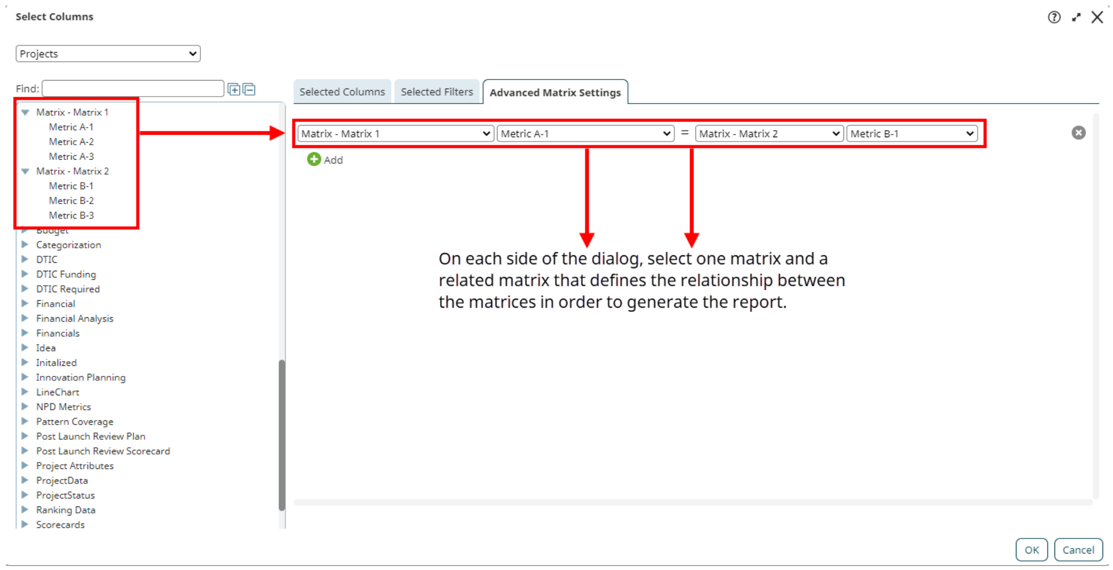
1. Create a new report or open an existing report for editing.
2. On the **Advanced Matrix Settings** tab, select the matrices and metrics to be included in the report.
3. Click **Add** to add the matrix join statements.
4. In each side of the dialog, select one of the matrices from the drop-down list, and select an option to use as the common value to join the matrices.

   The two selected matrices must be different, but the matrix/metric combination can be any combination of metrics or row IDs, as long as the selected metrics share a common value and are of the same data type.

   Selecting a metric will define it as the common value between the two matrices. Note that it can be the same metric if it is used in both matrices, or it can be different metrics that will have the same value in both matrices. In addition, a metric used as a common value does not need to be added as a reporting column in order to be used to create the join statement.

   Selecting Row ID will compare matrices by rows, for example Row 1 in Matrix A will be compared with Row 1 in Matrix B, and so on. This can be used when there are no additional common values in the two matrices, and the matrices have a direct line-by-line comparison.

Caution! Selecting Row ID as a common value can cause inconsistencies in reporting. Since assigned Row IDs are not visible within a matrix, report results can be incorrect if rows have been deleted from a matrix or if there is a mismatch.



5. Repeat steps 3-4 to add additional matrix join statements as necessary.

   All included matrices must have at least one related join statement, but a matrix can be referenced in more than one statement. For example, if you choose to include metrics from Matrix A, Matrix B, and Matrix C, you would need to create two statements to join the information. You could create a statement that relates A to B, and one that relates B to C, or you could have a statement that relates A to B, and one that relates A to C.

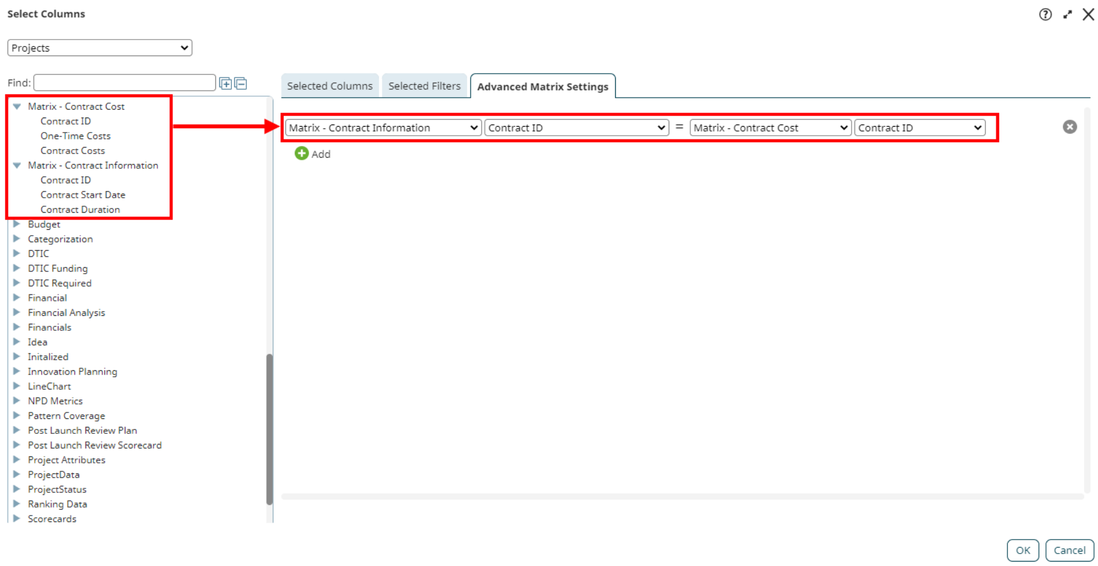
6. Finish setting up the report, as necessary.
7. Click **Done** to apply your changes and generate the report.

Note: **[EMPTY]** or blank cells in your report may indicate a mismatch in the common value linking the matrices. If the project value referenced in the join statement is not defined in one of the matrices, for example if there is not a matching value in both matrices, or a matrix contains empty rows, the report will return partial or full rows that contain **[EMPTY]** values.

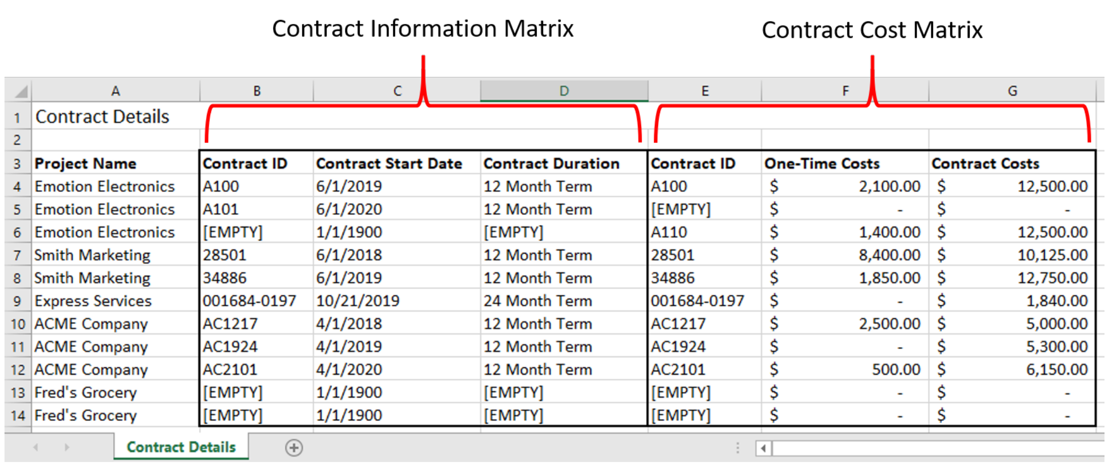
EXAMPLE Example

For example, a user has two different matrices that contain information related to vendor contracts for their projects, and needs to create a report containing relevant information from both matrices. They have a matrix named **Contract Information**, which contains the start date and duration of the specific contracts, and a second matrix named **Contract Cost**, which contains the costs related to the specific contracts.

To pull this information into one report, the user has added the related columns to the **Columns** tab, and created a join statement in the **Advanced Matrix Settings** tab that links the two matrices using the **Contract ID** metric that is a member of both matrices.



Once the user enters the remaining report details and clicks **Done**, the following report is generated.



	A	B	C	D	E	F	G
1	Contract Details						
2							
3	**Project Name**	**Contract ID**	**Contract Start Date**	**Contract Duration**	**Contract ID**	**One-Time Costs**	**Contract Costs**
4	Emotion Electronics	A100	6/1/2019	12 Month Term	A100	$ 2,100.00	$ 12,500.00
5	Emotion Electronics	A101	6/1/2020	12 Month Term	[EMPTY]	$ -	$ -
6	Emotion Electronics	[EMPTY]	1/1/1900	[EMPTY]	A110	$ 1,400.00	$ 12,500.00
7	Smith Marketing	28501	6/1/2018	12 Month Term	28501	$ 8,400.00	$ 10,125.00
8	Smith Marketing	34886	6/1/2019	12 Month Term	34886	$ 1,850.00	$ 12,750.00
9	Express Services	001684-0197	10/21/2019	24 Month Term	001684-0197	$ -	$ 1,840.00
10	ACME Company	AC1217	4/1/2018	12 Month Term	AC1217	$ 2,500.00	$ 5,000.00
11	ACME Company	AC1924	4/1/2019	12 Month Term	AC1924	$ -	$ 5,300.00
12	ACME Company	AC2101	4/1/2020	12 Month Term	AC2101	$ 500.00	$ 6,150.00
13	Fred's Grocery	[EMPTY]	1/1/1900	[EMPTY]	[EMPTY]	$ -	$ -
14	Fred's Grocery	[EMPTY]	1/1/1900	[EMPTY]	[EMPTY]	$ -	$ -

Note the following:

The **Contract ID** field is the common identifier included in both matrices, and used to connect the relevant information.

Columns B-D contain information that is from the **Contract Information** matrix in the related projects.

Columns E-G contain information that is from the **Contract Cost** matrix in the related projects.

The highlighted sections below show two different scenarios that may indicate missing or incomplete data.

- Rows 5 & 6 of the report display **[EMPTY]** in some of the data cells, which indicates Contract IDs values that are not found in both matrices. In row 5, the information for contract A101 is only included in the Contract Information matrix, so the related Contract Cost matrix fields are

[EMPTY]. In row 6, the information for contract A110 is only included in the Contract Cost matrix, so the related Contract Information matrix fields are **[EMPTY]**.

- Rows 13 & 14 display **[EMPTY]** cells in all of the data cells, which indicates that one or more of the included matrices either does not have any rows added, or contains empty rows.

Note: Although the **[EMPTY]** returned values are an indicator of potential issues, the mismatched values reported are dependent on the data type. String and list metrics will display as **[EMPTY]**. As shown in the example below, a number metric will display **0**, and a date metric will represent the default **1/1/1900** date.

	A	B	C	D	E	F	G
1	Contract Details						
2							
3	**Project Name**	**Contract ID**	**Contract Start Date**	**Contract Duration**	**Contract ID**	**One-Time Costs**	**Contract Costs**
4	Emotion Electronics	A100	6/1/2019	12 Month Term	A100	$ 2,100.00	$ 12,500.00
5	Emotion Electronics	A101	6/1/2020	12 Month Term	[EMPTY]	$ -	$ -
6	Emotion Electronics	[EMPTY]	1/1/1900	[EMPTY]	A110	$ 1,400.00	$ 12,500.00
7	Smith Marketing	28501	6/1/2018	12 Month Term	28501	$ 8,400.00	$ 10,125.00
8	Smith Marketing	34886	6/1/2019	12 Month Term	34886	$ 1,850.00	$ 12,750.00
9	Express Services	001684-0197	10/21/2019	24 Month Term	001684-0197	$ -	$ 1,840.00
10	ACME Company	AC1217	4/1/2018	12 Month Term	AC1217	$ 2,500.00	$ 5,000.00
11	ACME Company	AC1924	4/1/2019	12 Month Term	AC1924	$ -	$ 5,300.00
12	ACME Company	AC2101	4/1/2020	12 Month Term	AC2101	$ 500.00	$ 6,150.00
13	Fred's Grocery	[EMPTY]	1/1/1900	[EMPTY]	[EMPTY]	$ -	$ -
14	Fred's Grocery	[EMPTY]	1/1/1900	[EMPTY]	[EMPTY]	$ -	$ -

Contract Details

Notes:

- To delete a matrix join statement from an Accolade Excel report, click **Data Reports** in the Accolade menu on the Excel ribbon and click the name of the report to open it for editing. Click the **Advanced Matrix Settings** tab, and click in the corresponding definition row to delete it. Click **Done** to apply your changes and generate the report and save your changes to the report.

Refreshing Data in Accolade Excel Reports

When you open an Excel report on the **Charts & Reports** page, the file is automatically downloaded to your computer and refreshed with the most current data from Accolade. You can refresh the data in Excel files that have been saved to your computer if all of the following are true:

- You have the Accolade Office Extensions add-in installed on your computer.
- The report was created using Accolade Office Extensions.
- You have user rights to refresh data for Reporting (see your profile page).
- Your computer can access the Accolade server.

Reports created using SQL queries do not contain refresh options once the file is saved from Accolade.

The information below assumes you are using the Accolade Office Extensions add-in to create reports.

To refresh Accolade data when opening an MS Excel report:

1. View the chart or report from the **Charts & Reports** page.

   The file is automatically downloaded to your computer and refreshed. If you save the file to your computer, the next time you open it you are prompted to select whether to refresh the Accolade data.

2. Select one of the following options:

   - Click **Yes** to refresh and be prompted again the next time you open the file.
   - Click **No** to not refresh, but be prompted next time you open the file.
   - Select the **Use my response each time** check box and click **Yes** to always refresh without being prompted.
   - Select the **Use my response each time** check box and click **No** to never refresh, and not be prompted about it again.

   Your selection is saved for this file and applies only to your user.

Note: If you selected filters to prompt on refresh, a dialog displays allowing you to modify filters before refreshing the data.

Notes:

- To refresh Accolade data in reports after opening an MS Excel report, navigate to the Accolade menu in the Excel ribbon and click **Refresh Reports**.
- Reports created in Excel using the Accolade Office Extensions add-in can be embedded in deliverables. The same refresh procedures described above apply to those reports as well.

Updating Filters in Accolade Excel Reports

Depending on a report's setup, you may be prompted to modify filters that select the data included within the report. Update the filters to see what effect those changes have on the tables and charts in the report, and as a result can view an alternative scenario. For example, if a chart shows projects with a certain range of estimated Net Present Value (NPV), you can see the effect of moving the range higher or lower.

The information below assumes you are using the Accolade Office Extensions add-in to create reports.

To modify filters in an MS Excel report:

1. View the report and refresh the Accolade data, as necessary.

   If you are prompted to refresh report filters. click **Yes** to modify the filters.

2. Change the condition, filter values, or both for the selected filter(s).

If the filter is used on multiple reports, click + to view and modify the filters on individual reports. If you modify the filter at the top level, it will apply globally across all reports contained in the workbook.

3. Click **Done** to apply your changes and generate the report.

   The reports in the file are refreshed using the changed filter values.

Notes:

- Changes that you make to the filters are saved if you save the file. These changes are saved with the version that you save; they are not saved to the version saved within Accolade.
- If you are not given the option to modify the filters, but you have Accolade Office Extensions installed on your computer, you can save the file to your computer and modify the source report to make the filters editable.

Exercises - Refresh Accolade Data in MS Excel Reports

Try out what you have learned!

- Open a chart and report.
- Refresh data in both charts and reports after opening the MS Excel file.
- Change a filter and refresh again to see how the report changes.

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